NEXOGENESIS
STREAMLINING WATER RELATED POLICIES

NExus Policy Assessment Tool - NEPAT

User Guide

Lead: EUT
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Figures

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1. 🚀 Getting Started

The **NExus Policy Assessment Tool (NEPAT)** is an **interactive platform** designed to help users analyze the **complex interconnections** between **Water, Energy, Food, and Ecosystems (WEFE)**. By simulating different climate and socioeconomic scenarios, NEPAT empowers policymakers, researchers, and stakeholders to assess the potential impacts of policies and make informed decisions for sustainable resource management.

Policy Impact Evaluation

NEPAT allows users to evaluate **how different policies affect the WEFE sectors** under different climate and societal conditions. This helps anticipate potential trade-offs and synergies by integrating:

◈ **Climate projections** (RCPs – Representative Concentration Pathways): Describe different levels of greenhouse gas emissions and their potential impact on global temperatures.

◈ **Societal projections** (SSPs – Shared Socioeconomic Pathways): Outline different possible future global developments, such as population growth, economic changes, and energy use.

AI-Powered Policy Recommendations

One of NEPAT's most powerful features is its ability to **suggest effective policies** using artificial intelligence. The tool can analyze a vast range of scenarios and provide **customized recommendations** to help achieve specific goals within the WEFE nexus. This feature is particularly useful for identifying the most impactful policy measures, optimizing resource management, and adapting policies to different future conditions.

A Platform for Collaboration and Decision-Making

NEPAT is designed not only as a technical tool but also as a **collaborative platform** that facilitates discussions between policymakers, researchers, and stakeholders. By providing clear data visualizations and interactive tools, NEPAT supports:

◆ **Import, export, and reporting:** Users can share policy simulations by importing, exporting, and generating reports.

◆ **Informed policy dialogue:** Users can explore different policy options and their potential consequences.

◆ **Cooperative decision-making:** Users can work together to develop strategies that benefit multiple sectors.

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1.1. NEPAT Case Studies

NEPAT has been developed as part of the **NEXOGENESIS project** to support policy assessment and decision-making across diverse river basins. The platform has been applied in the following **five Case Studies**.

🌍 Case Study 1: Nestos River Basin (Greece & Bulgaria)

📍 **Area:** 5,479 km² | **Length:** 243 km | **Location:** Spans the Bulgaria-Greece border in Southeastern Europe

The **Nestos/Mesta CS** comprises the Nestos/Mesta river basin shared between Greece and Bulgaria. The Nestos/Mesta river springs from the Rila Mountains (BG) and discharges in the Thracian Sea (GR). Its basin area is approximately equal to 5,479 km2 and its length is about 243 km. The river forms a significant ecosystem throughout its course and its delta is a unique ecosystem protected by the Ramsar Convention and considered as a first priority site under EU Natura 2000. Two dams operate in the Greek part of the basin (downstream) which are mainly used for electricity production purposes, covering also irrigation needs. The main activities supporting local income are agriculture and livestock.

📎 **More Info:** Nestos River Basin Case Study

🌍 Case Study 2: Lielupe River Basin (Latvia & Lithuania)

📍 **Area:** 17,788 km² | **Location:** Shared between **Latvia & Lithuania** in **Northeastern Europe**

The **Lielupe CS** is in North-Eastern Europe and includes the 17,788 km2 Lielupe river basin shared between Latvia and Lithuania and is situated in the lowland part of the countries. Around

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12% of Latvian population and around 11% of Lithuanian population live in this territory (altogether around 800 000 inhabitants). The basin is predominantly used for agriculture (ca. 60%) but also includes large areas of forests (ca. 30%) and some urban areas, as well as wetlands and floodplain meadows including nature protected areas and nature parks. The relief, climate and high soil fertility make suitable conditions for agricultural activities significantly contributing to the economy of the region. Other economic activities in Lielupe CS relate to trade and transport services, as well as the processing industry and public services. Agriculture has intensified over the past decades at the cost of natural grassland habitats. During the last decade the area of croplands has increased while meadows and pastures have been reduced. The development prognosis indicate that these trends will be maintained and coupled with increased volumes of fertilisers utilised in line with intensification of agriculture.

📎 **More Info:** Lielupe River Basin Case Study

🌍 Case Study 3: Jiu River Basin, Lower Danube (Romania)

📍 **Area:** 16,759 km² | **Location:** Romania | **Part of the Danube River Basin**

The **Lower Danube CS** is focused on the 16,759 km2 Jiu River Basin in Romania, a sub-basin of the Danube river, aiming to explore interconnection and replicability crossborder in Serbia and Bulgaria. The Jiu river flows from the Romanian Carpathian Mountains southwards through several counties before it discharges into the Danube at Zaval, the Romanian-Bulgarian border near the Bulgarian city of Oryahovo. The basin is mainly characterised by arable land (48%), forest (30%) and pastures (9%). Population in the upstream mountain areas of the basin rely on the coal mining industry with lignite-based electricity and heat generation, while the downstream areas are characterized by agricultural activities that depend on water supplies for irrigation and hydropower production. The Lower Danube wetland ecosystem, which includes several EU Natura 2000 sites, is highly sensitive and has already lost nearly 80% of its surface area in the last century due to river dredging, land reclamation and flood control measures. Anthropogenic interventions (e.g. dams) along the Danube stimulated erosion and negatively affected the riverbed, while floods and drought events continue to impact the region.

📎 **More Info:** Jiu River Basin Case Study

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Case Study 4: Adige River Basin (Italy)

Area: 12,100 km² | **Length:** 409 km | **Italy's Second-Longest River**

The **Adige CS** spans over Italy's second-longest river: the 409 km long Adige river that comprises a river basin area of 12,100 km2. It flows from its source in the Italian Alps through six provinces in northern Italy before it reaches the Venetian Lagoon and flows into the Adriatic Sea. Within the Adige river basin, economic sectors historically developed on abundant water resources: e.g., 61 hydropower stations in the upper part of the basin produce energy exceeding the provincial energy demands, while the valleys in the upstream mountain provinces are characterised by the intensive apple orchards, which represent more than 15% of European apple production. In addition, winter and summer tourism play an important role in the mountain economy, with an annual population increase of 5-6 times the number of permanent residents. The lowlands, downstream of the province of Verona, are characterised by intensive cultivation, mainly including vineyards and cereals irrigated through water withdrawals. The regional park and its wetland ecosystems sustain fisheries, aquaculture and provide essential protection against saline intrusion and coastal erosion. Moreover, the delta has a high recreation value, being an important touristic destination.

More Info: Adige River Basin Case Study

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🌍 Case Study 5: Inkomati-Usuthu River Basin (South Africa & Eswatini)

📍 **Transboundary Basin | South Africa & Eswatini | Part of the Inkomati-Usuthu Water Management Area**

The **Inkomati-Usuthu CS** comprises the Inkomati-Usuthu Water Management Area, which in turn includes several parallel river catchments in South Africa and Swaziland (now known as Eswatini), which later converge to form the Inkomati river at the border with (or within) Mozambique and later flow into the Indian Ocean. The river basin is located downstream of mining activities and contains high potential agricultural land as well as conservation areas, including the southern portion of the Kruger National Park. Thus, the basin is vital to South Africa's development, in particular relating to energy security (coal-fired power stations), food security (almost half of the country's high potential agricultural land) and water security (numerous competing water users).

🗞️ **More Info:** Inkomati-Usuthu Case Study

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1.2. Who Can Use NEPAT?

NEPAT is designed to serve a diverse range of users involved in policy assessment, decision-making, and research within the Water, Energy, Food, and Ecosystems (WEFE) nexus. The platform accommodates different expertise levels by offering both high-level strategic insights and advanced analytical tools.

- **Policymakers and government agencies** – To assess the long-term effects of policies on water, energy, food, and ecosystems, supporting evidence-based decision-making and sustainable policy development.
- **NGOs and civil society organizations** – To facilitate discussions on sustainable policies, advocate for data-driven environmental strategies, and engage in informed decision-making processes.
- **Scientists and researchers** – To study the interactions between different WEFE sectors under various future scenarios, contributing to both academic research and practical policy applications.
- **Consultants and analysts** – To conduct detailed impact assessments, develop policy recommendations, and support stakeholders in optimizing resource management strategies.
- **Students and educational institutions** – To enhance learning about policy analysis, sustainability, and resource management by providing an interactive tool for exploring real-world scenarios.
- **Any interested user** – To explore policy impacts on the WEFE nexus, gain insights into sustainability challenges, and engage with an interactive tool for scenario analysis and decision support.

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1.3. Resources

Guidance

For easy access to support, the platform provides helpful **guidance buttons** throughout each section. These buttons are designed to provide brief explanations or instructions about the features and functionalities you are currently using. Simply click on the **help icons** next to the elements you need assistance with for more information.

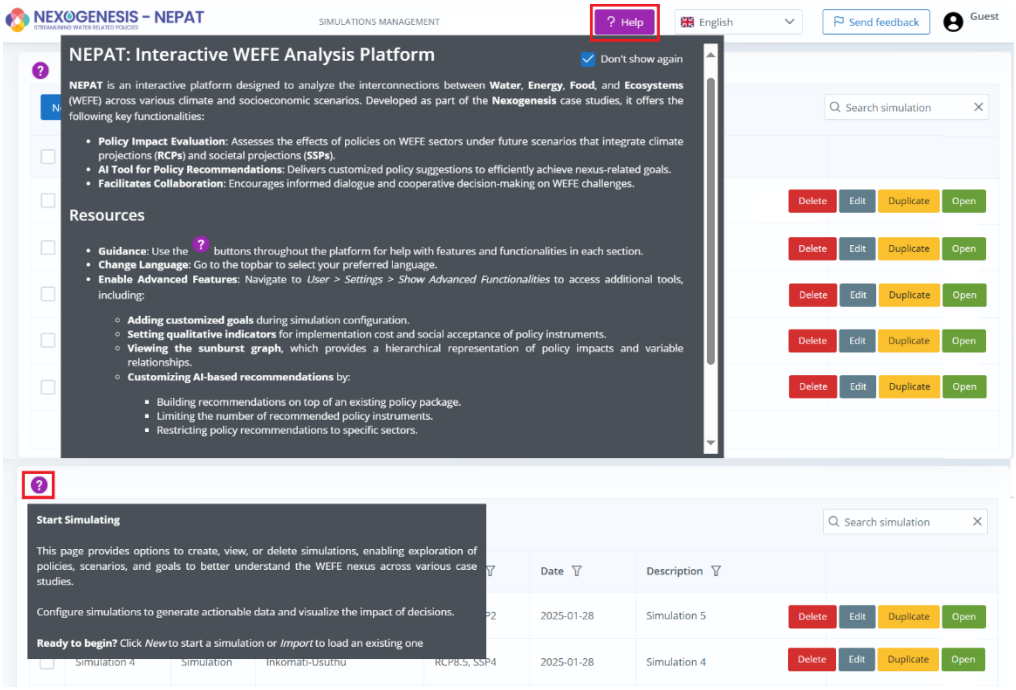

Figure 1. Help functionality in NEPAT

Change Language

To accommodate users from various regions, NEPAT supports multiple languages: English, Greek, Bulgarian, Latvian, Lithuanian, Romanian, and Italian.

To switch to your preferred language, navigate to the **header** of the platform and click the **language dropdown**. Select your language from the list, and the interface will automatically update to reflect your choice.

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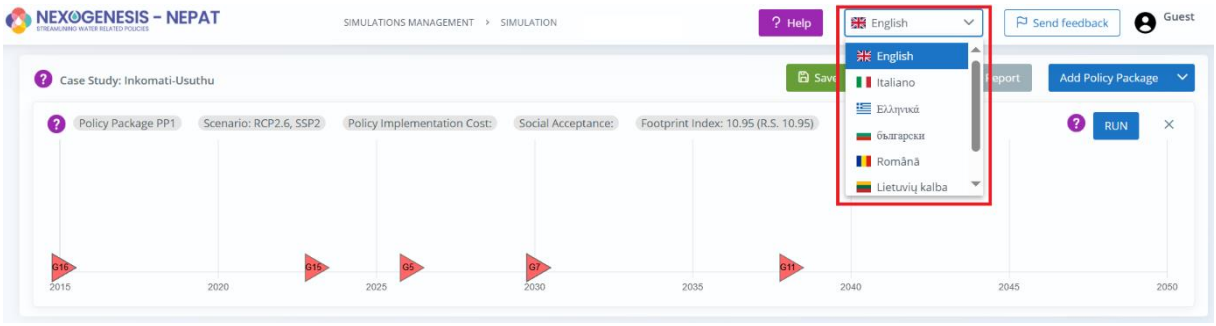

Figure 2. Change language in NEPAT

🎥 Online Video Tutorial

For a step-by-step guide on using the platform, access the **online video tutorial** available via the NEPAT Video. This tutorial provides visual demonstrations of the key features and functionalities of NEPAT.

🔍 Learn More About Nexogenesis

To gain a deeper understanding of the broader context and objectives behind NEPAT, you can explore the **Nexogenesis project**. For more detailed information, visit the official project website at nexogenesis.eu. Here, you'll find project background, updates, and resources about ongoing initiatives and future directions.

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1.4. NEPAT's User Experiences

To accommodate the needs of both decision-makers and technical experts, NEPAT provides two distinct user experiences.

Strategic Experience – High-Level Insights

The **Strategic Experience**, which is the default mode in NEPAT, is tailored for users who require easily interpretable information to support high-level decision-making. It presents simplified yet insightful visualizations of policy impacts without requiring in-depth technical expertise. Details on these functionalities are provided in the sections: 📂 Management View and 🔍 Simulation View.

◈ **Simplified Information:** Clear, synthesized data presented using colorful graphics and diagrams for quick comprehension.
◈ **Visualized Outcomes:** Easily understandable comparisons of policy effects across different scenarios.
◈ **Summarized Simulation Results:** Indicator evaluations and high-level analysis to facilitate decision-making.

Technical Experience – Advanced Analysis

The **Technical Experience** is intended for users who need a more in-depth analysis of policy impacts, allowing them to work with detailed simulations, customizable settings, and advanced modeling techniques. Users can activate this view by enabling advanced functionalities: ***User*** > ***Settings*** > ***Show advanced functionalities*** (Figure 3). Details on these functionalities are provided in the 📊 Advanced functionalities section.

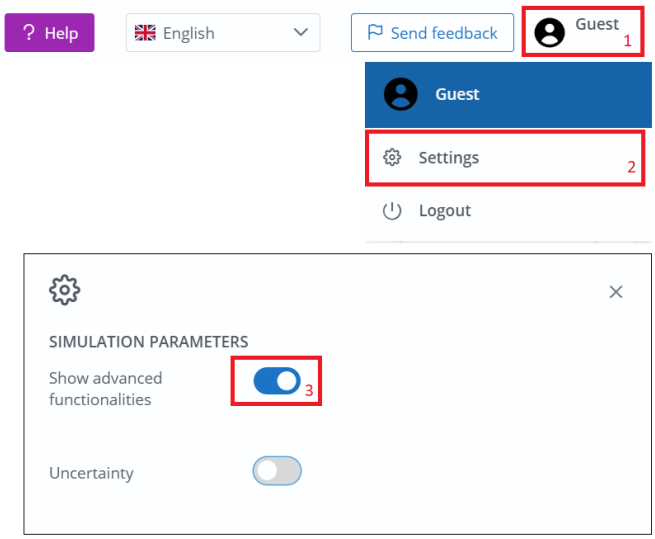

Figure 3. Show advanced functionalities in NEPAT

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1.5. Accessing NEPAT

To get started with NEPAT, visit NEPAT Login Page or https://nepat-dev.nexogenesis.eu/#/login. The platform offers a simple and flexible login system with three ways to access:

- **Guest Access** – Explore NEPAT without creating an account.
- **Sign Up & Log In** – Create an account to save your work.
- **Google Login** – Use your Google account for quick and easy access.

Before logging in, you can select your preferred language from the menu at the top of the page. By logging in, you agree to NEPAT's **Privacy Policy** and **Terms of Service**. A link to the full terms is available on the login page if you want to review them before continuing.

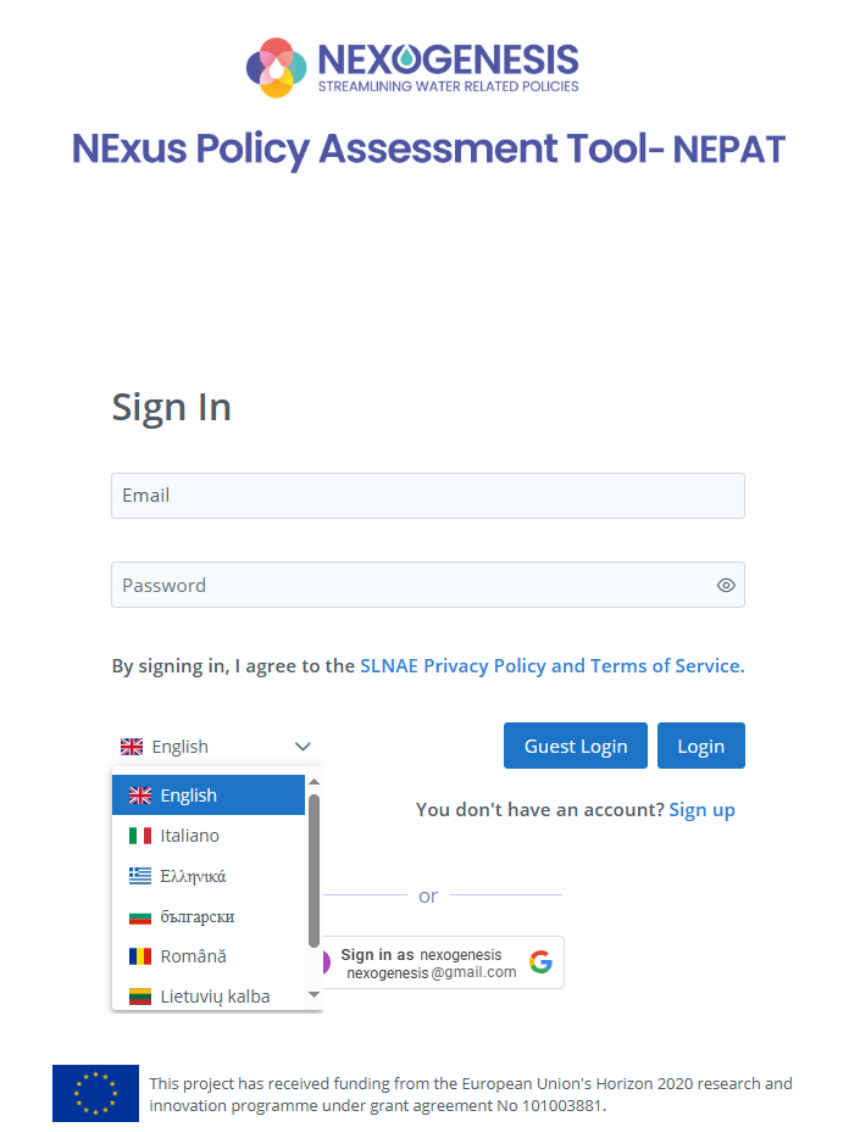

Figure 4. NEPAT login page

Choosing Your Login Option

✅ Guest Login

Want to explore without signing up? Choose the **Guest** option to access all features. You can even save simulations during your session! However, keep in mind that your data will be lost when you log out—so remember to export your work if needed.

✅ Sign Up & Log In

For users who want to save their progress, the **Sign Up** option allows you to create an account. This is ideal for ongoing projects, as it lets you store and manage your simulations. If you already have an account, simply enter your email and password to log in.

✅ Login with Google

Skip manual registration by choosing **Login with Google**. This option provides a fast, secure way to access NEPAT using your Google credentials.

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2. Management View

The **Management View** is the main interface in NEPAT for handling simulations. Upon logging in, you are directed to the Management View. Here, you can create new simulations and manage, access and continue working on saved simulations.

This view presents a table displaying all saved simulations.

- **Logged-in users** will see previously saved simulations from past sessions.
- **Guest users** will start with an empty table, as their simulations are not stored permanently.

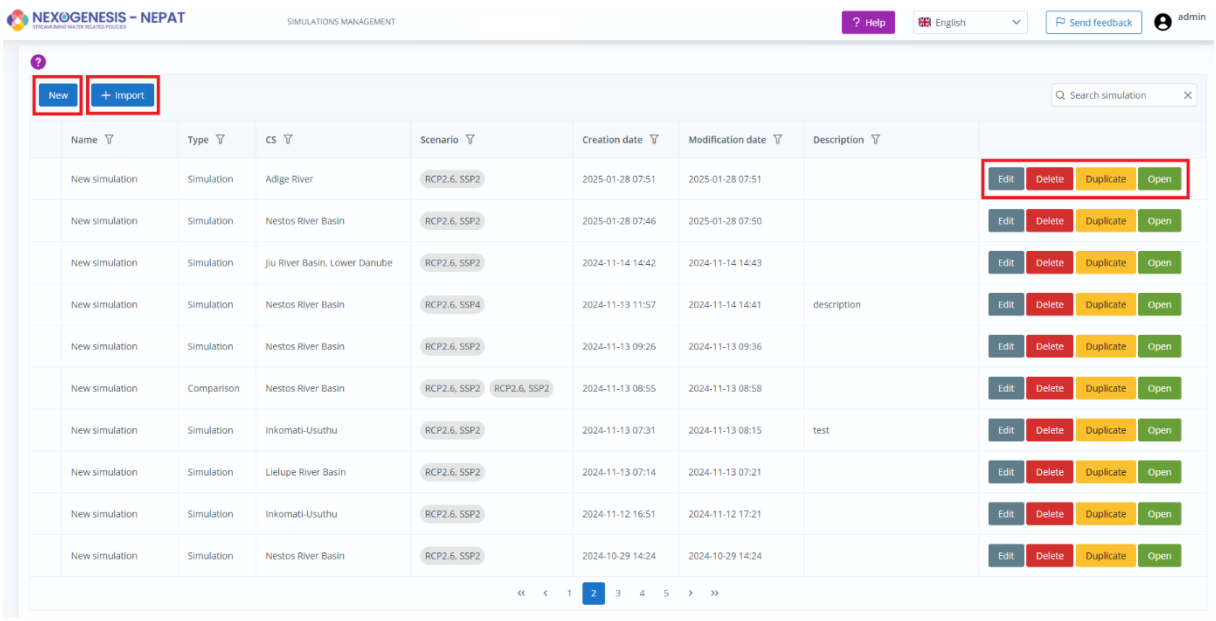

Figure 5. Management View in NEPAT

Each simulation in the table includes the following details:

- **Simulation Name** – Defined by you.
- **Type** – Indicates whether it's an individual simulation or a comparison of multiple policy options.
- **Case Study** – The specific case study associated with the simulation.
- **Scenario** – The future projection selected for the simulation.
- **Creation Date** – The date the simulation was created.
- **Modification Date** – The date the simulation was last modified.
- **Description** – A note you can add to describe the simulation.

You have several options to interact with your simulations:

- **Open** – Continue working on an existing simulation.

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- **Delete** – Permanently remove a simulation.
- **Duplicate** – Create a copy while preserving the original version.
- **Edit** – Modify the name or description of a saved simulation.
- **New Simulation** – Start a new simulation using the built-in simulation wizard.
- **Import Simulation** – Upload and restore a previously saved simulation.

To help you manage multiple simulations efficiently, the Management View includes:

- **Search Bar** – Quickly find specific simulations by typing keywords.

2.1. Configuring a Simulation in NEPAT

To begin creating a new simulation, click ***New*** to open the simulation wizard**.** The setup process consists of three simple steps:

1. Select the Case Study

Begin by choosing a **Case Study** from the available options. To learn more about a specific case study, click the *info* button next to its name.

📝 *Tip:* The *info* button provides details about the case study's geographical location, key features, and relevant context.

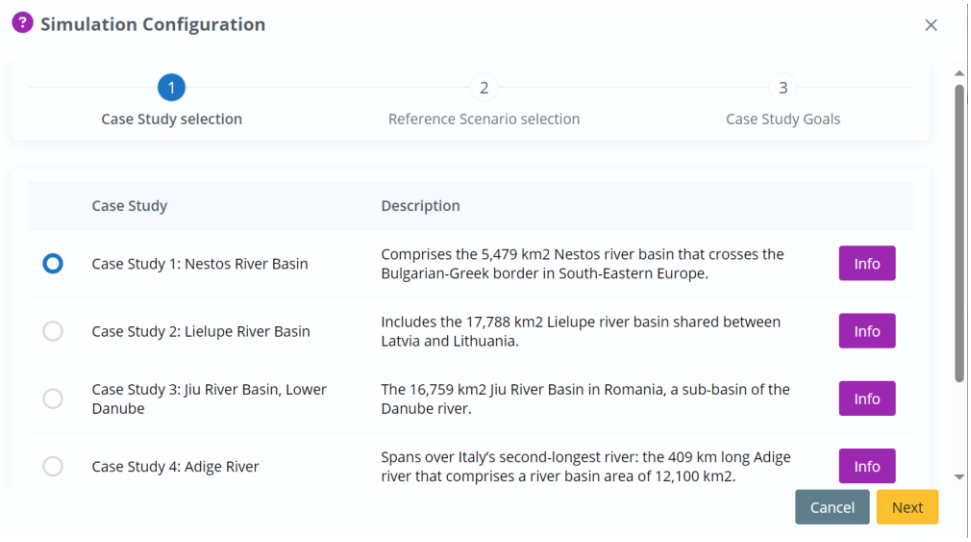

Figure 6. Configuring a simulation in NEPAT: Case Study selection

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Figure 7. Configuring a simulation in NEPAT: Case Study details

2. Select the Reference Scenario

Next, choose a **Reference Scenario** by selecting from a range of **RCPs** (climate projections) and **SSPs** (socioeconomic projections).

📝 *Tip:* Each combination represents a unique scenario for climate change and socio-economic conditions. Click the *info* button for more details on each scenario.

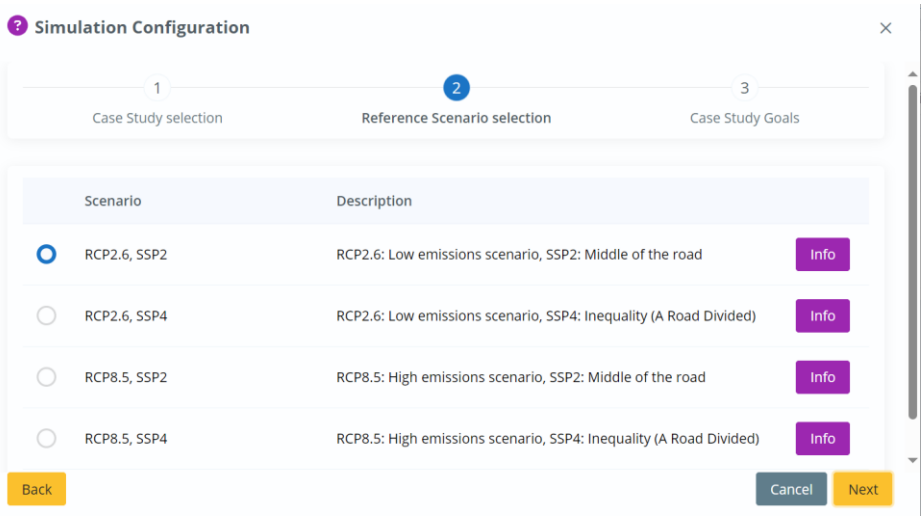

Figure 8. Configuring a simulation in NEPAT: Reference Scenario selection

3. Set Policy Goals

In this step, review the **default policy goals** for your selected case study, which are derived from relevant directives and legislation. Each goal represents the need to reach a specific target for an indicator by a particular year and sustain this achievement until the end of the simulation. Each goal includes:

- **Description** – A brief overview of the policy goal.

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- **Indicator** – The specific variable being measured to track progress (e.g., water availability, energy consumption, or agricultural yield).
- **Target Value** – The desired level the indicator must reach.
- **Target Year** – The deadline by which the target must be achieved.
- **Sustainability Requirement** – The obligation to maintain the target value from the target year until the end of the simulation.

In the **Nestos/Mesta CS**, you can customize the target year for policy goals by selecting the ***Select Year*** button, as shown in Figure 10. The chosen target year will apply to all default policy goals.

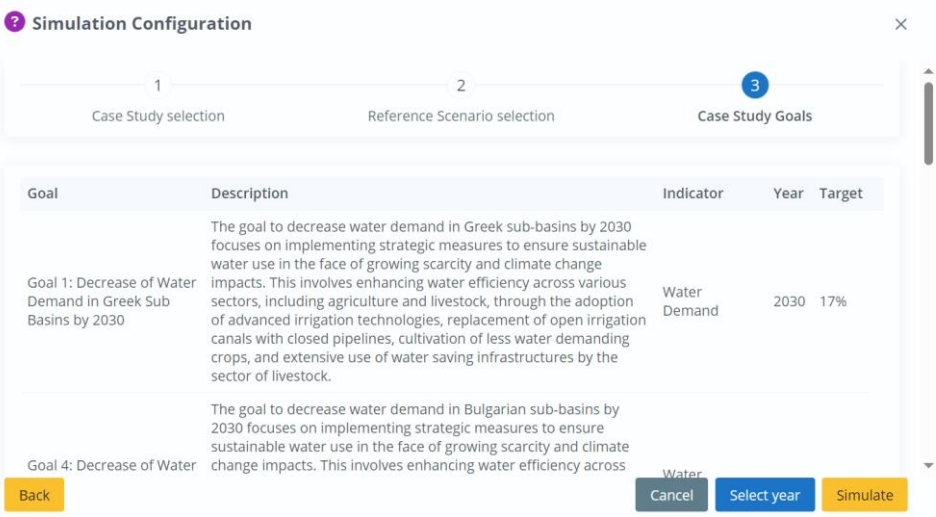

Figure 9. Configuring a simulation in NEPAT: predefined policy goals

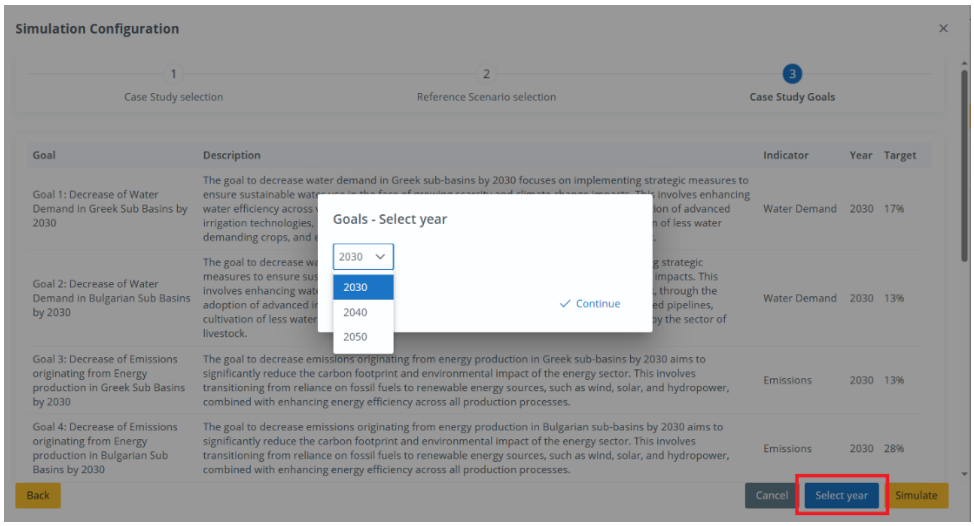

Figure 10. Configuring a simulation in NEPAT: customize the target year in Nestos/Mesta CS

Finalizing the Configuration

Once everything is set up, click **Simulate** to proceed to the 🔍 Simulation View, where you can run your simulation and explore the results.

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3. Simulation View

Once you finish setting up your simulation, you'll land in the **Simulation View**—your main hub for exploring and analyzing results! Let's break it down. The Simulation View has two main sections:

1. **Policy Package (PP) Summary** (blue Top Section in the Figure 11)
   - Here, you'll see a visual **timeline of the policies** you've set up.
   - To apply policies, go to the Policy Instruments section.
   - Each policy is represented as a bar, showing its start and end time.
   - **Colored flags** along the timeline indicate how well the policies are achieving their goals. To understand the meaning of these colored flags, refer to the Policy Goals section.

2. **Simulation Tools & Results** (blue Bottom Section in the Figure 11)
   This section lets you tweak settings and explore simulation results.
   Use the **dropdown menu** (highlighted in red in the Figure 11) to switch between features.
   - Global View – See an overview of your case study
   - Policy Instruments – Add and fine-tune your policies
   - Policy Goals – Check how well your policies are meeting objectives
   - Nexus Footprint – See how policies impact different sectors
   - Detailed View – Dive deep into simulation variables
   - Decision Support System – Get AI-powered policy recommendations

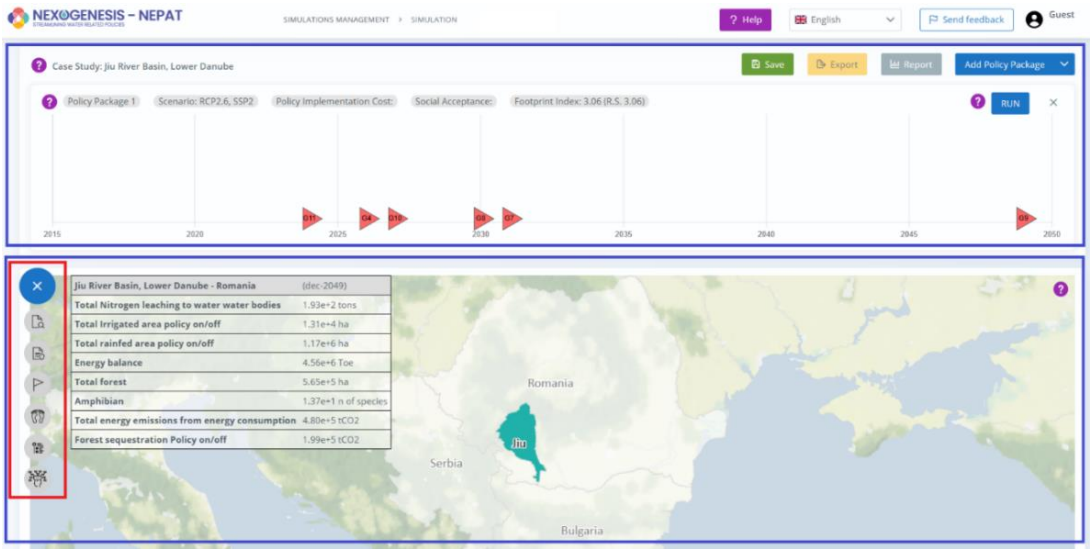

Figure 11. Simulation View in NEPAT

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3.1. Policy Package Summary

The **Policy Package Summary** gives you an overview of your simulated policy packages, making it easy to manage and analyze different scenarios. Let's explore what you can do here!

Top menu functions

At the top of this section, you'll find key options to control your policy packages.

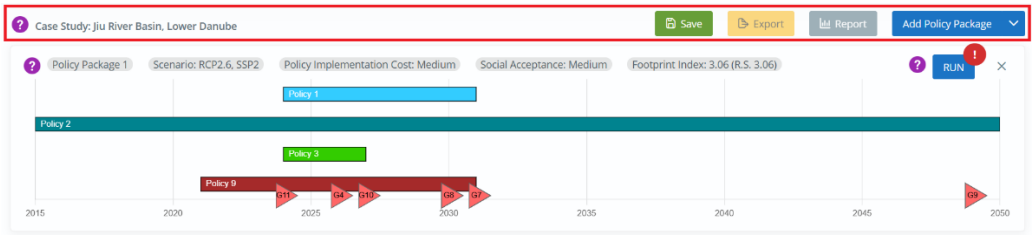

Figure 12. Policy Package Summary: Top menu functions

- **Add Policy Package –** Compare different scenarios to analyze their effects.
- **Save –** Preserve your simulation progress and comparisons in the Management View.
- **Export –** Save your simulation to your computer by creating a file, which you can share with others or import in future sessions.
- **Report –** Generate a PDF summary of key insights.

Policy instruments, indicators, and run

A policy package is a set of policy instruments configured to simulate their impacts on the WEFE nexus in the selected reference scenario (from 2015 to 2050).

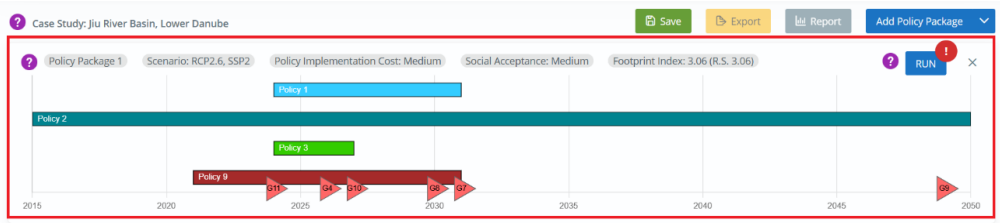

Figure 13. Policy Package Summary: Policy instruments, indicators, and run button

Each policy package includes:

- **Scenario** – Environmental and socioeconomic future considered.
- **Policy Implementation Cost** – Aggregated qualitative measure of the economic impact of selected policies.
- **Social Acceptance** – Aggregated qualitative measure of how well society accepts the policies.
- **WEFE Footprint Index** – Numeric value representing the environmental footprint by the end of the simulation (see Nexus Footprint section for details).

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- **Policy Instruments** – Horizontal bars show the **start year**, **duration**, and **end year** of each policy.
    - Add policies ones via the Policy Instruments view.
    - Remove policies by hovering over a policy in the policy package summary and clicking the **red** ***Delete*** button.
- **Goal Flags** – Color-coded indicators showing how well each goal is achieved (see Policy Goals section for more info).

Once you have included the desired ***Policy Instruments***, click the ***RUN*** button to simulate the policy impacts across the WEFE nexus. This will process your selected policies and generate results based on your settings.

📌 **Note:** If you modify your policy package—by adding or deleting policies—the ***RUN*** button will display an **exclamation mark (!)**. This serves as a reminder that you must rerun the simulation to ensure all results reflect the latest changes.

After running the simulation, you can explore the outcomes using the different analysis tools available in the main menu ⊕.

3.2. Global View

The **Global View** is the first section of the dropdown menu and is open by default when you enter the Simulation View after configuring a simulation. Figure 14 highlights in red how to access this view from the dropdown menu.

The Global view offers a concise overview of the basin's main characteristics and context, helping to set the stage for analysis. Here you can find:

📋 A table with the simulation results of some key indicators.

🗺️ The Case Study's geographic location displayed on a map.

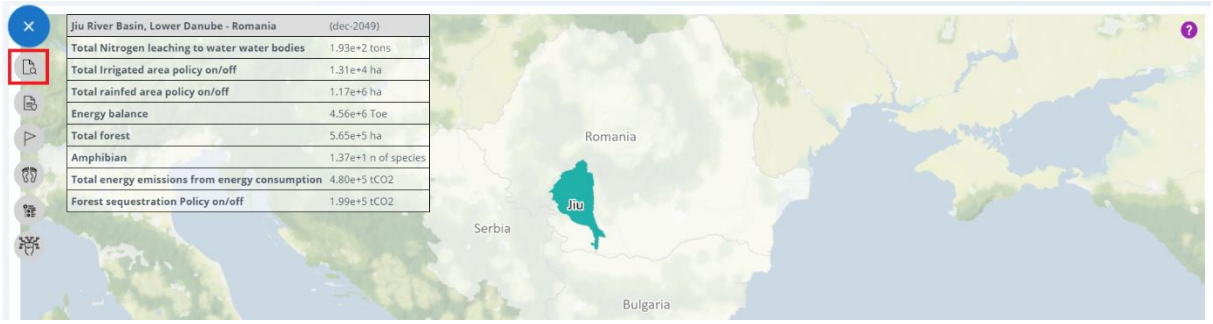

Figure 14. Global View in Simulations

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3.3. Policy Instruments

The **Policy Instruments View** is the second section of the dropdown menu (Figure 15). In this section, you can explore and configure policy instruments for your case study. These instruments affect different sectors and are integrated into simulation models, allowing you to analyze their impact on the Water-Energy-Food-Ecosystems (WEFE) nexus.
Policy instruments are grouped by sector, with distinct colors and icons for easy identification. You can study their individual effects or combine multiple instruments into a policy package to assess their impact on the entire system.

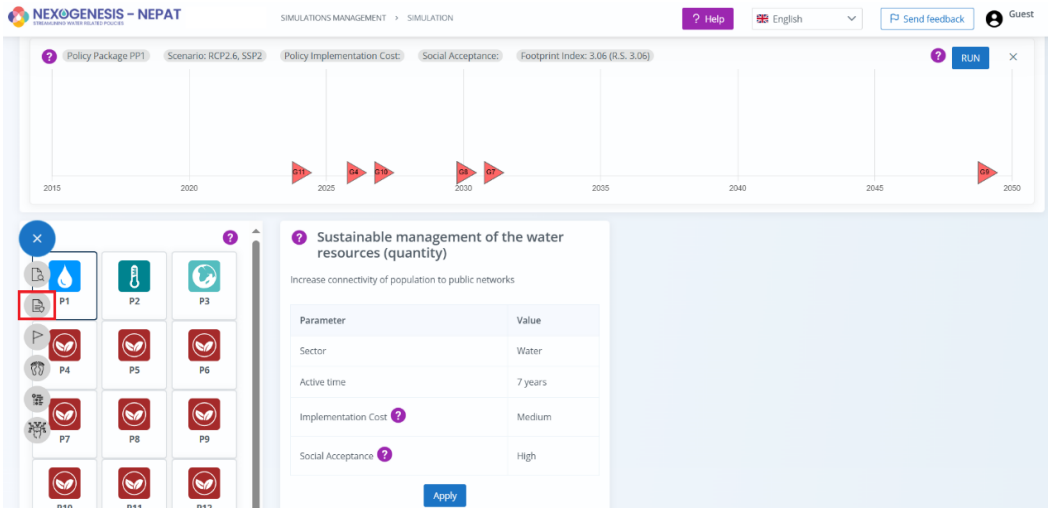

Figure 15. Policy instruments in the Simulation View

Configure a Policy Package

Follow these steps to set up and apply a policy package:

✅ Step 1: Selecting a Policy Instrument

- Browse through the available policy instruments, organized by sector.
- Click on a policy to view its definition and key parameters in the center of the screen.

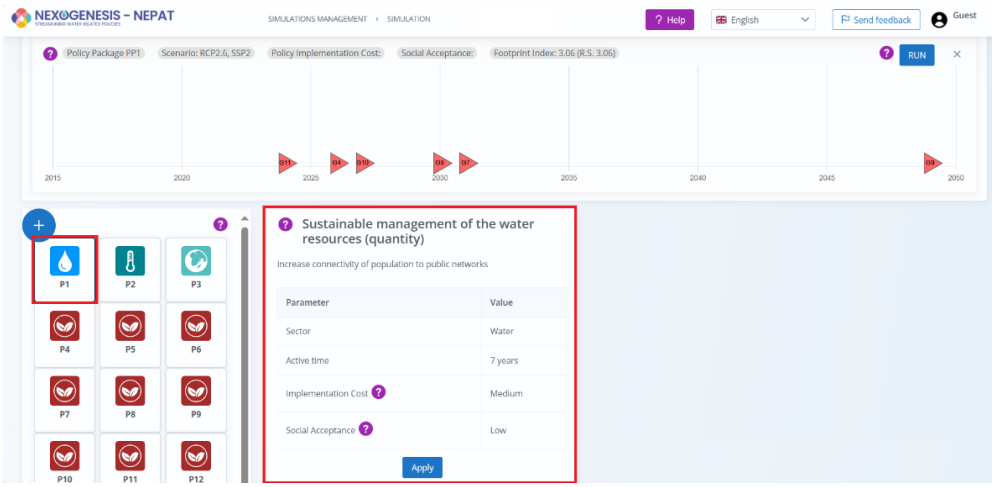

Figure 16. Configuring a Policy Package: Step 1

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✅ Step 2: Applying a Policy Instrument

- Once you've selected a policy, click the **Apply** button to include it in your policy package.
- The selected policy will now appear in the Policy Package Summary at the top of the page.
- Repeat Step 1 to apply multiple policy instruments as needed.

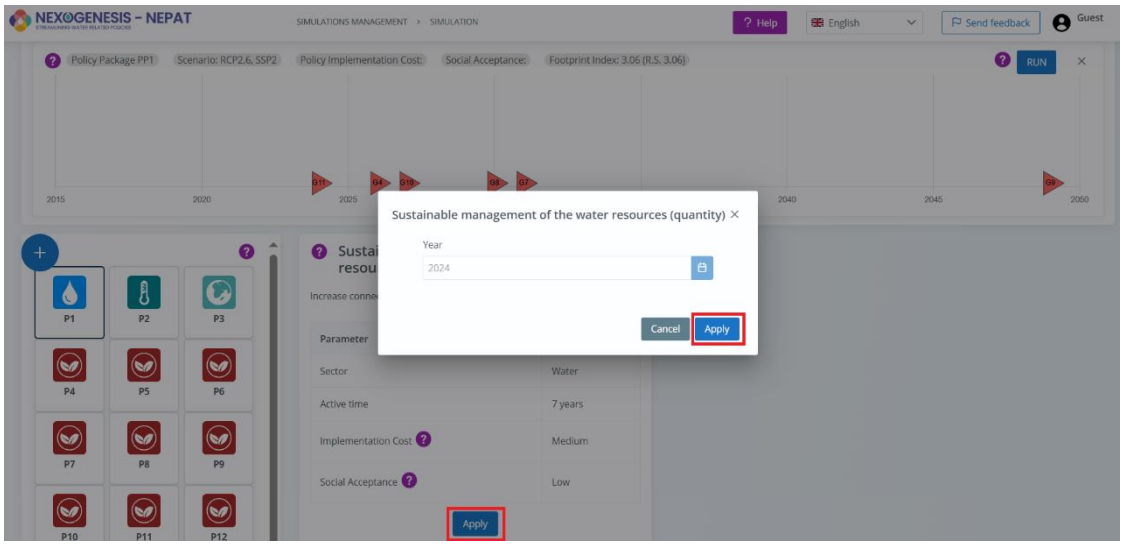

Figure 17. Configuring a Policy Package: Step 2

✅ Step 3: Running the Simulation

- After adding all desired policies, click the ***RUN*** button to simulate the scenario for the 2015–2050 period.
- The system will process the data and generate results across the WEFE nexus.
- All views will update automatically, reflecting the impact of the selected policies.

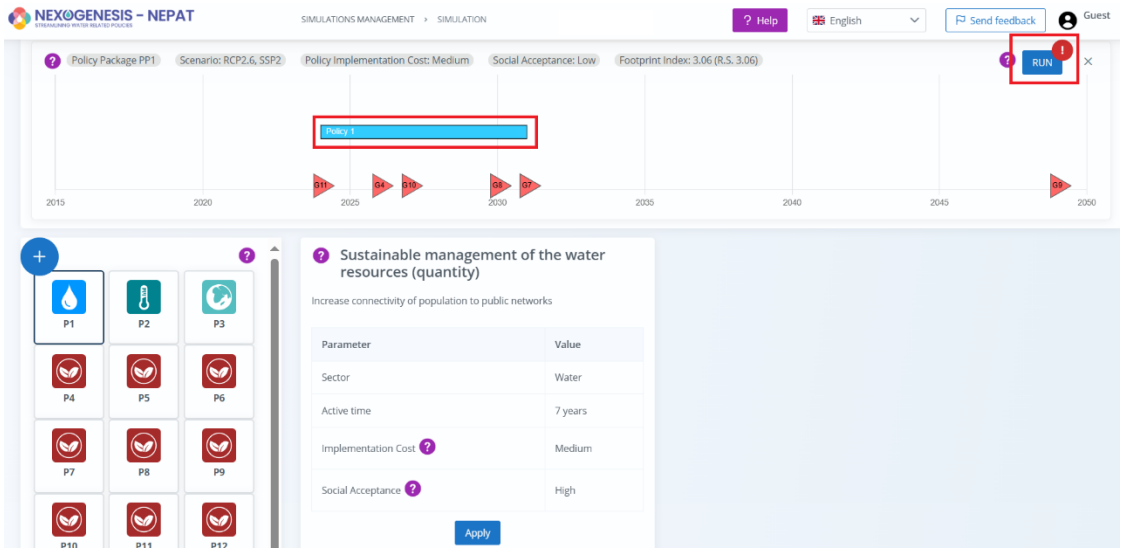

Figure 18. Configuring a Policy Package: Step 3

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✅ **Step 4: Exploring Your Results**

- Once the simulation is complete, use the main menu ➕ to analyze how the policy instruments affect the system across different views.

3.4. Policy Goals

The **Policy Goals View** is the third section of the dropdown menu (Figure 19). This section helps you track progress toward achieving the objectives set for your case study.

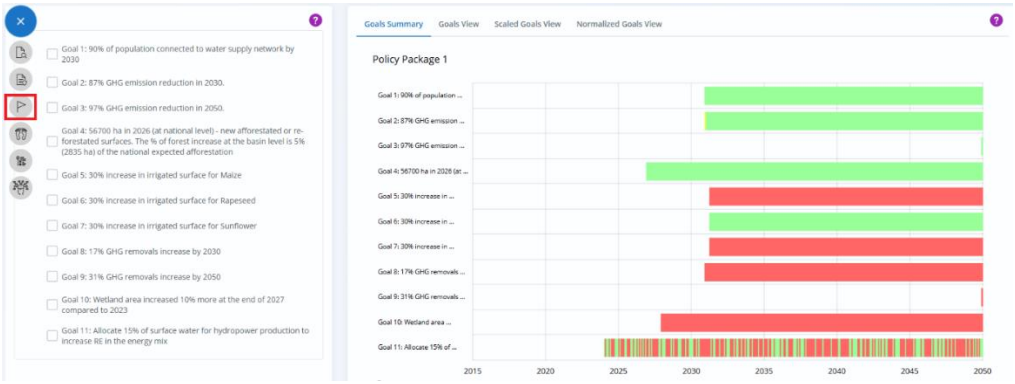

Figure 19. Policy Goals in the Simulation View

Goals Summary

The **Goals Summary** gives a quick overview of how well your selected policy package is performing (Figure 20). Progress is measured against the reference scenario and shown using a color-coded system for easy interpretation:

🟢 **Green** – Goal achieved.
🟡 **Yellow** – Progress is closer to the goal than to the reference scenario.
🔴 **Red** – Progress is closer to the reference scenario than to the goal.
⚫ **Black** – Progress is moving further away from the goal.

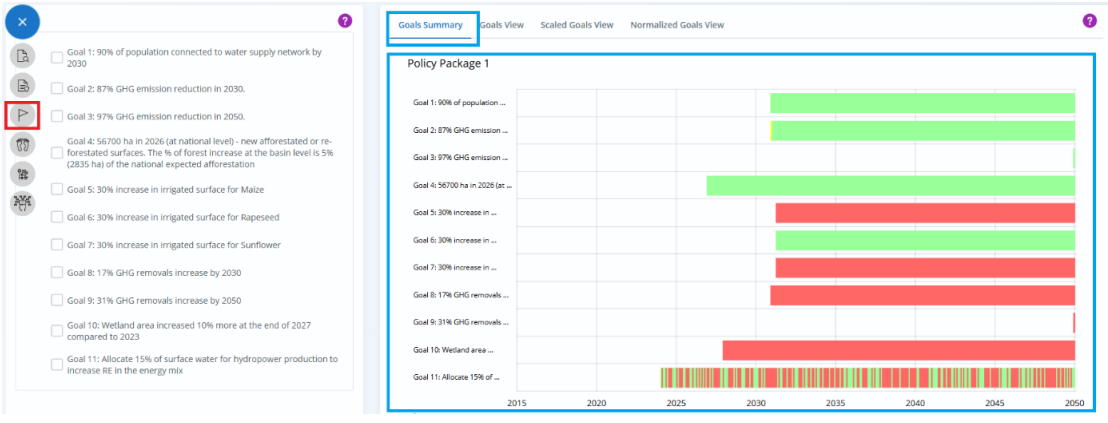

Figure 20. Policy Goals: Goals Summary

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You can find more details about each goal by selecting it. When you select a goal, its description, associated indicator, target value, and target year will be displayed below the goals section (Figure 21).

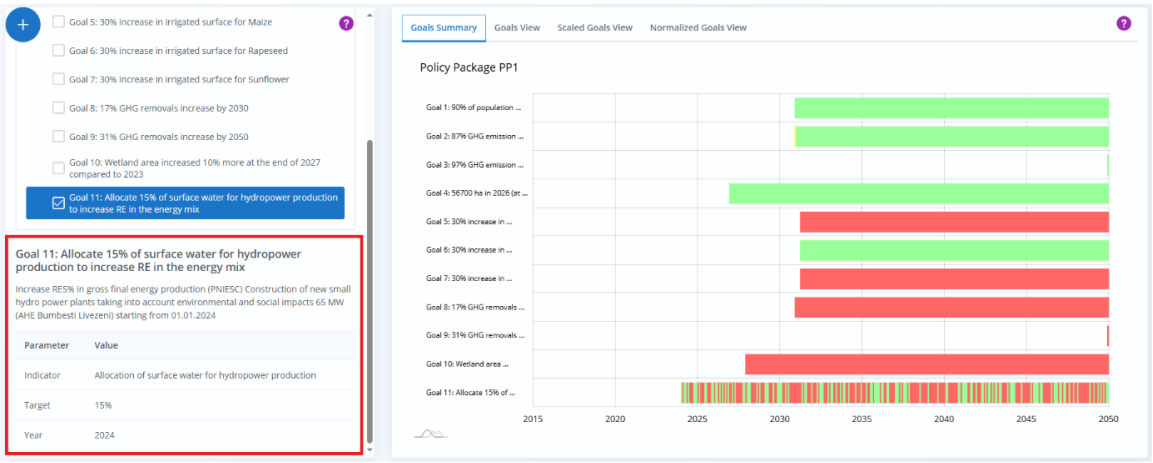

Figure 21. Policy Goals: Goals selection

Flags in Policy Package Summary

NEPAT provides **color-coded flags** in the **Policy Package Summary** to give you a quick visual assessment of overall performance (Figure 22).

The summary flag color in the Policy Package Summary is based on the worst performance found in the Goals Summary View:

🟢 **Green Flag** – The goal remains green from the year of achievement until the end of the simulation.
🟡 **Yellow Flag** – The goal turns yellow at any point, even if it is mostly green, but never red or black.
🔴 **Red Flag** – The goal turns red at any point, even if it is mostly yellow or green, but never black.
⚫ **Black Flag** – The goal turns black at any point, even if it is mostly red, yellow, or green.

📌 **Note:** Some goals have a target year set to the same year, meaning they appear in the visualization without a color-coded flag. To see details, hover over the flag to display a breakdown of goals for that year, along with their individual flag colors (Figure 22).

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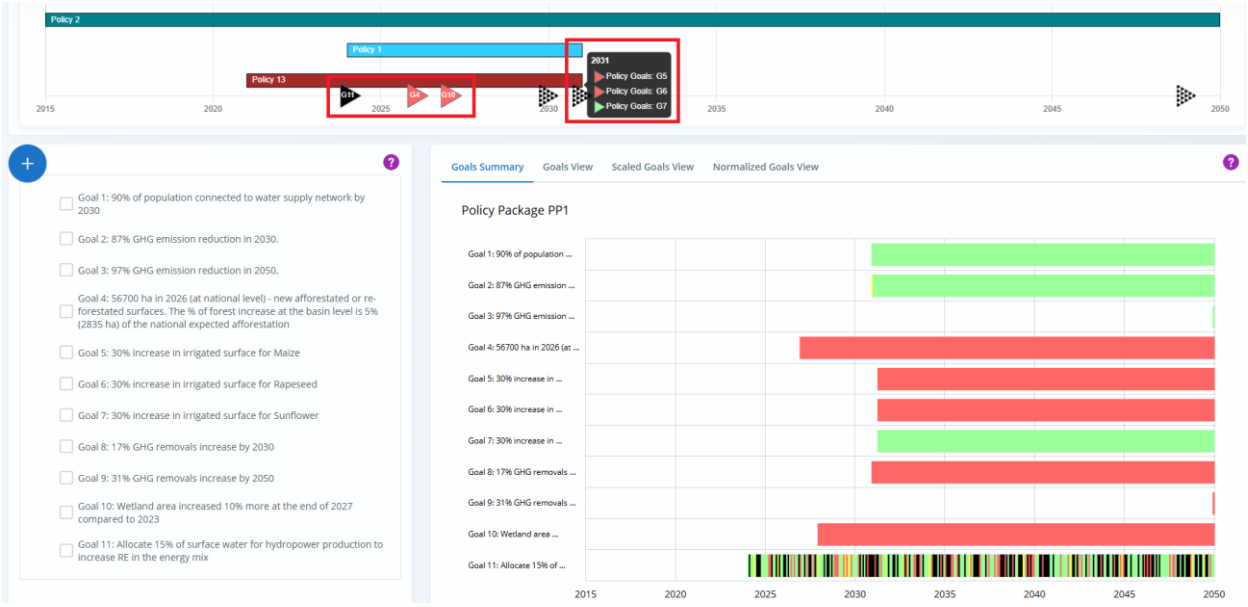

Figure 22. Policy Goals: Goals Summary and Policy Package Summary

Detailed Goals Views

For a more in-depth analysis, you can select a goal and explore it using three interactive views, each offering a unique way to assess progress toward policy targets (Figure 23).

1. Goals View (default view)

- Shows how selected indicators evolve over time from 2015 to 2050, using a monthly timestep.
- Displays values as they are, without any scaling or normalization.
- Enables comparisons between the reference scenario, policy scenario, and target values, helping users assess the impact of policy measures.

2. Scaled Goals View (for easier comparisons)

- Uses min-max scaling to normalize values within a range of -1 to 1.
- Makes it easier to compare indicators with different units or magnitudes.
    - Helps when comparing variables with very different value ranges.
    - Ensures all indicators fit on the same scale for better visual analysis.

3. Normalized Goals View (for relative comparisons)

- Adjusts values relative to the reference scenario, which is fixed at 1.
- Highlights whether the policy scenario aligns with or deviates from the reference scenario, providing insights into policy effectiveness.
    - Clearly shows whether policies are improving or worsening key indicators.
    - Helps identify policy trade-offs, where improving one variable might negatively affect another.

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All charts in these views are interactive, allowing users to toggle variables on or off using the legend for a customized analysis. Each view tracks indicator changes from 2015 to 2050, displaying their evolution and enabling easy comparisons across different scenarios.

Figure 23. Policy Goals: Goals Detailed Views

3.5. Nexus Footprint

The **Nexus Footprint View** is the fourth section of the dropdown menu (Figure 24). This section provides a comprehensive annual assessment of the WEFE Nexus, measuring performance and interactions across its four key pillars: Water, Energy, Food, and Ecosystems.

The index uses a scale from -100 to 100 to show whether an area is improving, stable, or declining over time. This clear structure helps users analyze both individual and combined impacts across the Nexus.

The WEFE Footprint Index follows a hierarchical structure, consisting of:

- **Four main pillars** – Water, Energy, Food, and Ecosystems.
- **Nine sub-pillars** – Each pillar is further divided into sub-pillars for more detailed analysis.
- **Sixteen indicators** – These measurable variables provide specific insights into Nexus dynamics.

This layered approach enables users to examine trends at different levels, from a high-level overview to detailed insights on individual indicators.

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Figure 24. Nexus Footprint in the Simulation View

The **Nexus Footprint Summary,** located on the right, is a dynamic, interactive diagram that lets you explore the WEFE Footprint variables compared to the baseline year of 2015 (Figure 25). This will allow you to assess whether, for example, the water pillar performs significantly better, worse or similarly to the baseline.

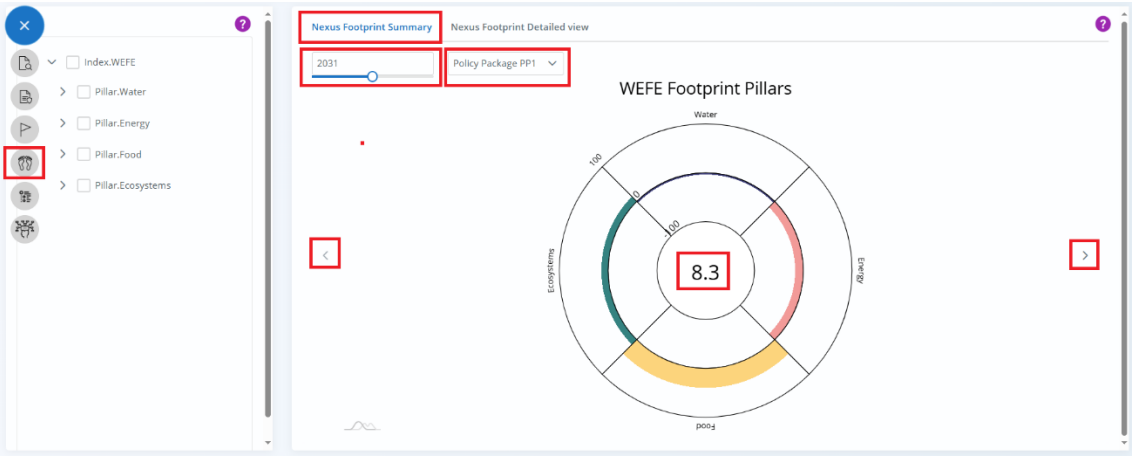

Figure 25. Nexus Footprint: Nexus Footprint Summary

- **Select a Year** – See how the footprint changes over time.
- **Choose a Policy Package** – Compare different policy options.
- **Central Index Score** – Shows the overall WEFE performance.
- **Navigate Between Levels** – Use arrows to explore pillars, sub-pillars, and indicators.
- **Color Coding** – Each pillar has a unique color for easy recognition:
  - *Blue* = Water
  - *Red* = Energy
  - *Yellow* = Food
  - *Green* = Ecosystems
- **Hover for Details** – Move your cursor over any section to see specific values.
- **Understanding the Scores** – Each level—indicators, sub-pillars, and pillars—has a value between -100 and 100:

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✔ *Positive values* = Improvements compared to baseline year 2015.
✘ *Negative values* = Decline compared to baseline year 2015.

The **Nexus Footprint Detailed View** (Figure 26) helps you track how selected indicators evolve from 2015 to 2050, with yearly updates. This allows you to compare two scenarios:

- The **Reference Scenario** (no policies applied)
- The **Policy Future Scenario** (with selected policy instruments)

By comparing these scenarios, you can see how different policies impact key indicators over time.

✅**Step 1: Select Indicators**

- Choose specific variables from the left list (e.g., Water Demand, as in Figure 26).

✅**Step 2: View Detailed Analysis**

- Once selected, the graph on the right will show how these values change over time.

✅**Step 3: Customize Your Chart**

- Use the legend to show or hide specific variables by clicking on them.

In Figure 26, the chart shows **Water Demand** under both the Reference Scenario and a selected Policy Package (PP1).

- **Both scenarios show a negative impact** compared to the 2015 baseline (values are below 0).
- **PP1 worsens the impact**—its values are even lower than the Reference Scenario. This suggests that the policy instruments applied in this scenario negatively affect Water Demand.

Even though Water Demand is negatively affected, the Policy Package Summary shows all green flags (Top Section in the Figure 26)—meaning that the overall policy goals are achieved. The policies are meeting their objectives, but they also create trade-offs—in this case, a negative impact on Water Demand. By exploring these insights, you can make informed decisions and find a balance between policy goals and potential side effects.

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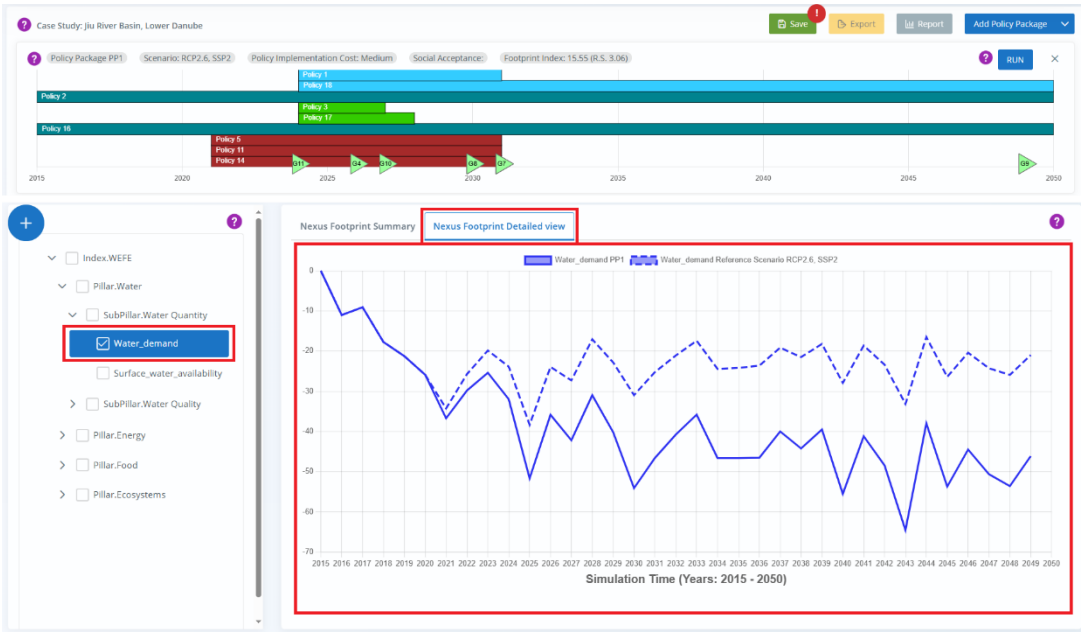

Figure 26. Nexus Footprint: Nexus Footprint Detailed View

In the Footprint Section, it's important to note that not all case studies have every variable modeled. If a variable (pillar, subpillar, or indicator) is not considered for a given Case Study, it will appear in grey in the footprint graphics (Figure 27). Additionally, these variables will not be visible in the Nexus Footprint Detailed View.

Figure 27. Nexus Footprint: Nexus Footprint Summary with Greyed-Out Indicators

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3.6. Detailed View

The **Detailed View** is the **fifth section** of the dropdown menu (Figure 28). This page helps you visualize and analyze how different variables evolve over time in the simulation model. It covers the entire 35-year simulation period (2015–2050) and allows you to understand the effects of policy decisions.

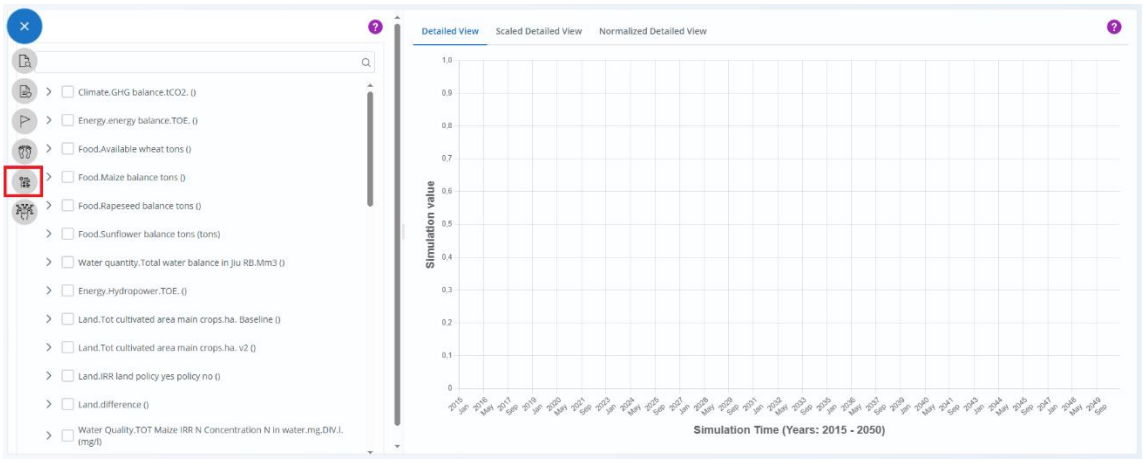

Figure 28. Detailed View in the Simulation View

On the left side of Figure 28, variables are organized in a hierarchical structure:

- Higher-level variables appear at the top.
- Expanding them reveals the detailed variables used in their calculations.

When you select a variable from the list, detailed information appears on the right, with three different viewing options (similar to the Detailed Goals Views). This is presented in Figure 29.

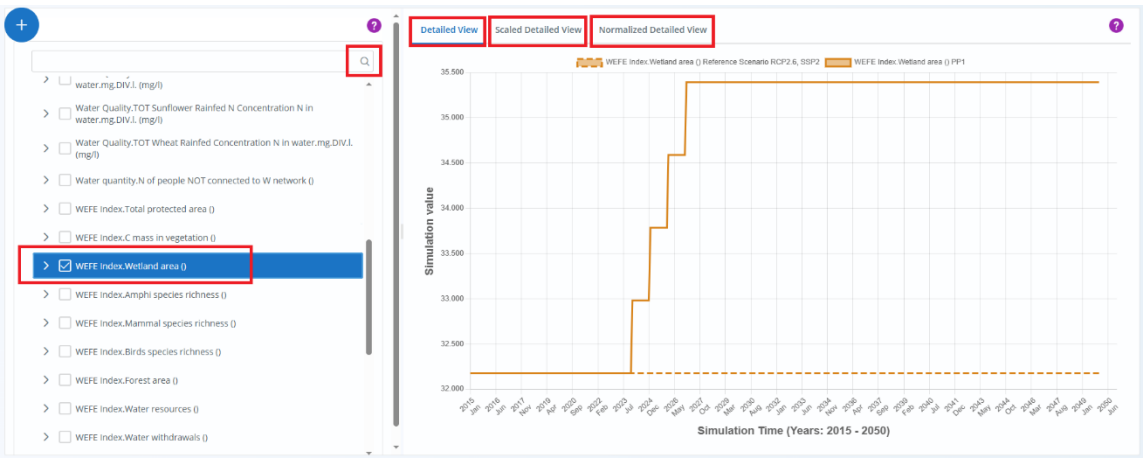

Figure 29. Detailed View: Viewing options

1. Detailed View (default view)

- Tracks the evolution of selected variables from 2015 to 2050, with monthly updates.
- Displays values as they are, without any scaling or normalization.

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- Helps you observe trends and fluctuations over time.

2. Scaled Detailed View (for easier comparisons)

- Uses min-max scaling to adjust values between -1 and 1.
- Makes it easier to compare indicators with different units or magnitudes.
    - Helps when comparing variables with very different value ranges.
    - Ensures all indicators fit on the same scale for better visual analysis.

3. Normalized Detailed View (for relative comparisons)

- Normalizes data by setting the Reference Scenario to 1.
- Highlights how much the Policy Scenario deviates from the baseline.
    - Clearly shows whether policies are improving or worsening key indicators.
    - Helps identify policy trade-offs, where improving one variable might negatively affect another.

Follow these steps to explore to analyze the data effectively:

✅**Step 1: Find Variables**

- Use the search bar to quickly locate specific variables or click to reveal underlying variables and explore how they are connected *(left side)*.

✅**Step 2: Select Variables**

- Select the variables that you want to visualize *(left side)*.

✅**Step 3: Compare Scenarios** - Analyze each variable under two scenarios *(right side)*:

- **Reference Scenario** (without policy interventions).
- **Policy Scenario** (with selected policy measures).

✅**Step 4: Customize Graphics**

- Use the legend to show or hide specific variables for a clearer view *(right side)*.

3.7. Decision Support System

The **NEPAT Decision Support System (DSS) View** is the sixth section of the dropdown menu (Figure 30). This section is designed to help you identify policy packages that align with your specific goals and priorities. This tool provides flexible and customizable recommendations, allowing you to explore tailored policy solutions and evaluate their potential impacts.

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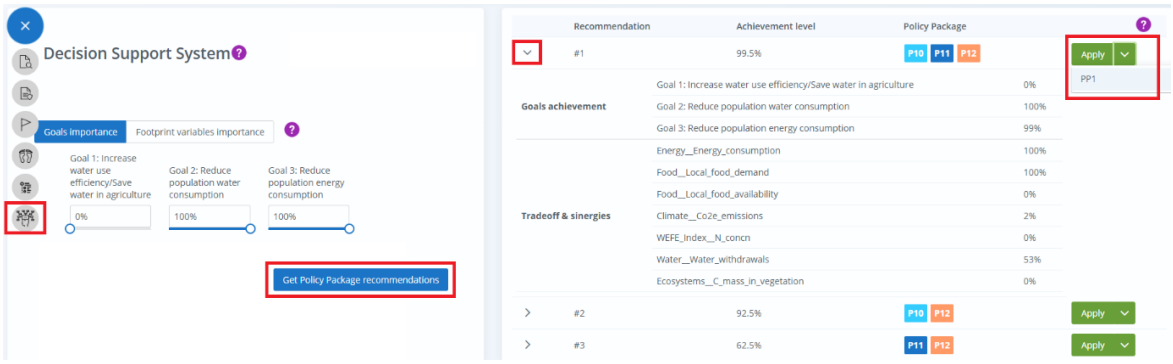

Figure 30. Decision Support System in the Simulation View

To generate policy recommendations, follow these steps:

✅ Step 1: Define your criteria

The DSS allows you to focus on either goals or footprint variables, but not both at the same time:

- ***Prioritizing Goals***
  - Click the **Goals Importance** button.
  - Select the goals you want to focus on assigning **weights (percentages)** to indicate their importance.

- ***Prioritizing Footprint Variables***
  - Click the **Footprint Variables Importance** button.
  - Select the footprint variables you want to emphasize adjusting their **weights** to influence the recommendations.

By adjusting these weights, you guide the DSS to focus on what matters most to you.

📝 *Tip: You can distribute weights equally or prioritize some goals by assigning them higher percentages.*

✅ Step 2: Click the Get Policy Package Recommendations button

✅ Step 3: Understanding the Recommendations

Once you define your criteria, the DSS generates up to 10 recommended policy packages, displayed on the right side of the screen. Each recommendation includes:

- **Overall Goal Achievement Score** – The average achievement of selected goals.
- **Detailed Policy List** – The specific policies included in the package.
- **Expandable Goal Details** – A dropdown menu showing how well each goal is met, helping you assess trade-offs.

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- **Apply Button** – Allows you to apply the selected policy package directly to the *Policy Package Summary*.

By exploring the ranked recommendations, you can compare different policy options and select the most effective strategy for your needs.

📌 **Note:** If no recommendations are provided, it means the DSS could not identify a better solution for the given scenario. This may occur when no feasible alternatives meet the defined policy goals or footprint variables (Figure 31).

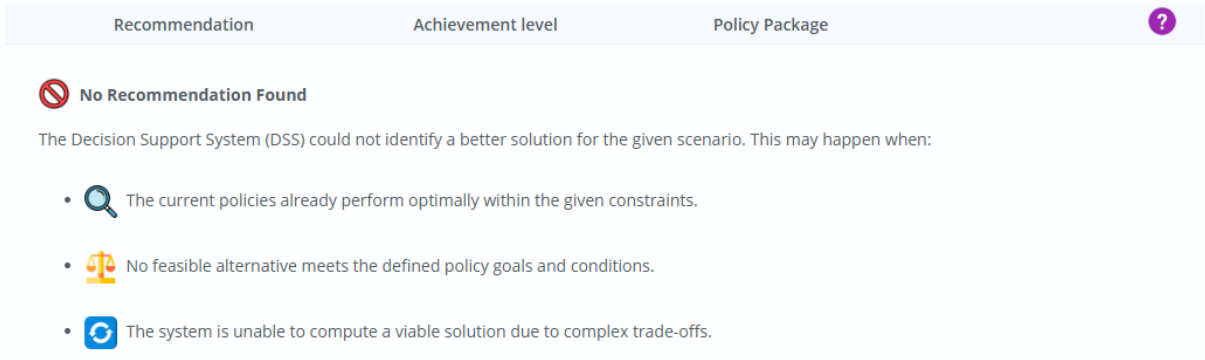

Figure 31. The DSS could not identify a better solution for the given scenario

Example: Evaluating Achievement Levels in Recommendations

This example is based on the following case study and scenario:

- ***Case Study:*** *Nestos River Basin*
- ***Reference Scenario:*** *RCP2.6, SSP2*

Let's consider a scenario where a user requests policy recommendations to achieve all goals in the NEPAT DSS (see Figure 32).

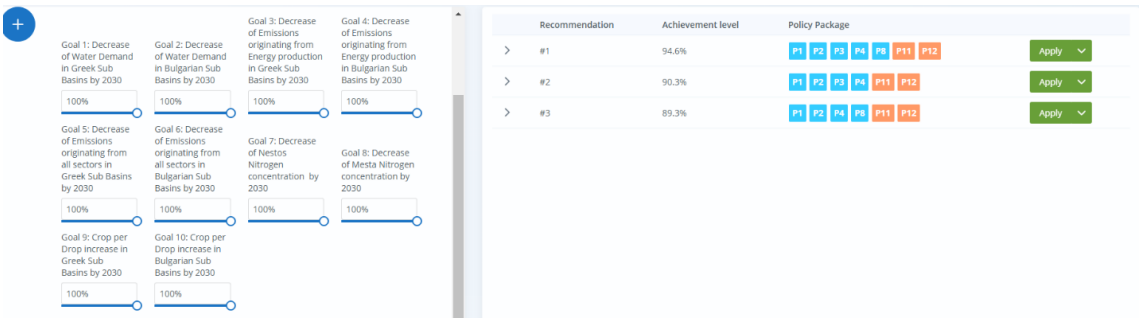

Figure 32. DSS: Evaluating Achievement Levels in Recommendations 1

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On the right side of the screen, you'll find a dropdown menu (marked with an arrow), which provides detailed information about the achievement level for each individual goal in the case study (Figure 33).

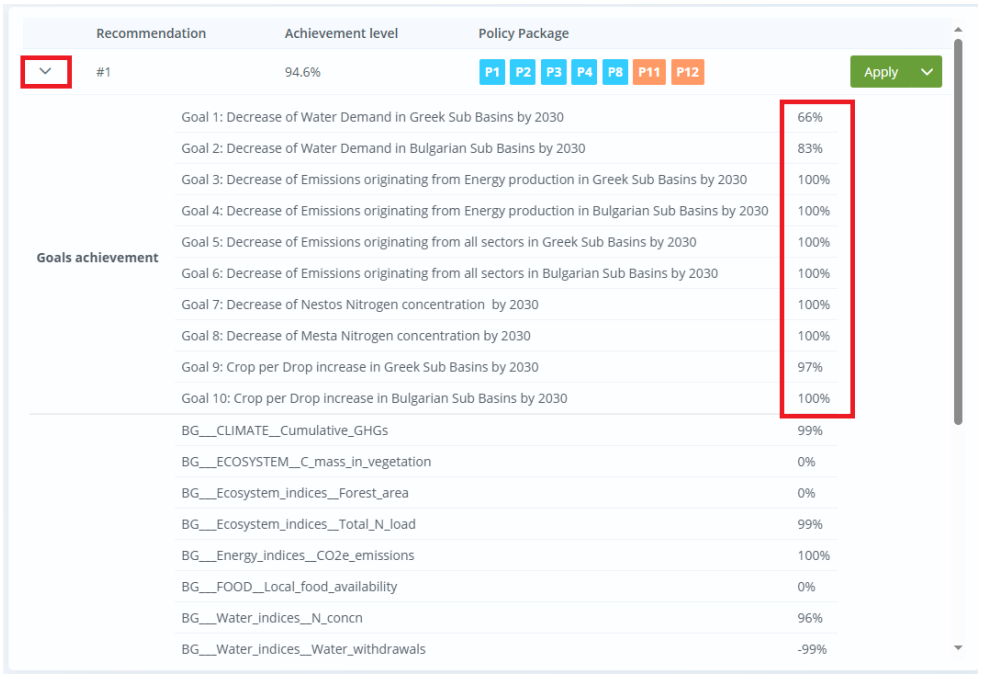

Figure 33. DSS: Evaluating Achievement Levels in Recommendations 2

In this example, since all 10 goals were included in the request, the overall achievement level is calculated as 94.6%—this represents the average achievement percentage of all selected goals.

If you modify the request and exclude goals 1, 2, and 9 (which cannot be fully achieved at 100%), the system will recalculate the achievement level, and it will now display 100%, since the remaining goals are fully attainable (Figure 34).

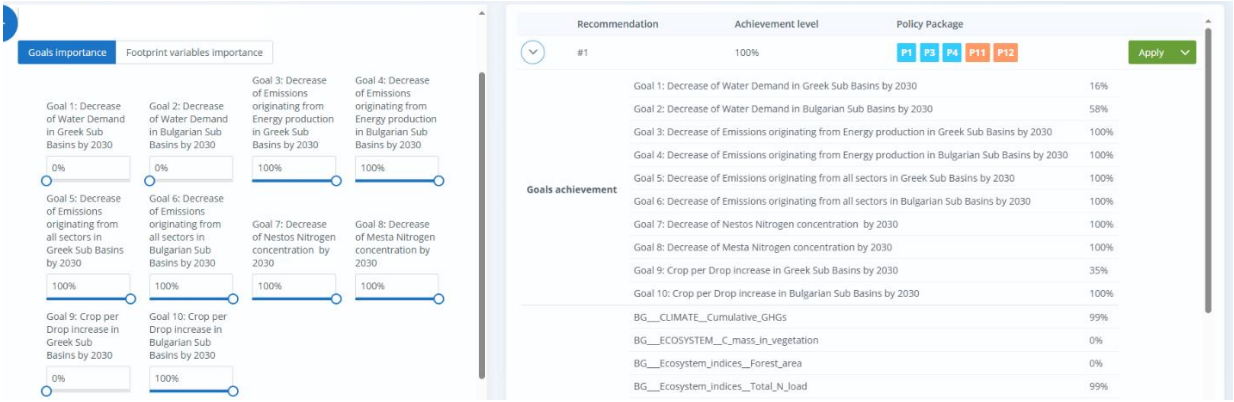

Figure 34. DSS: Evaluating Achievement Levels in Recommendations 3

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Example: Policy Improves One Goal but Negatively Affects Another

This example is based on the following case study and scenario:

- ***Case Study:*** *Jiu River Basin, Lower Danube*
- ***Reference Scenario:*** *RCP2.6, SSP2*

Let's say you use the DSS to request policy recommendations aimed only at achieving Goal 5 (Figure 35). In this case, the system focuses exclusively on optimizing Goal 5, without taking into account whether the recommended policies have positive or negative effects on other goals.

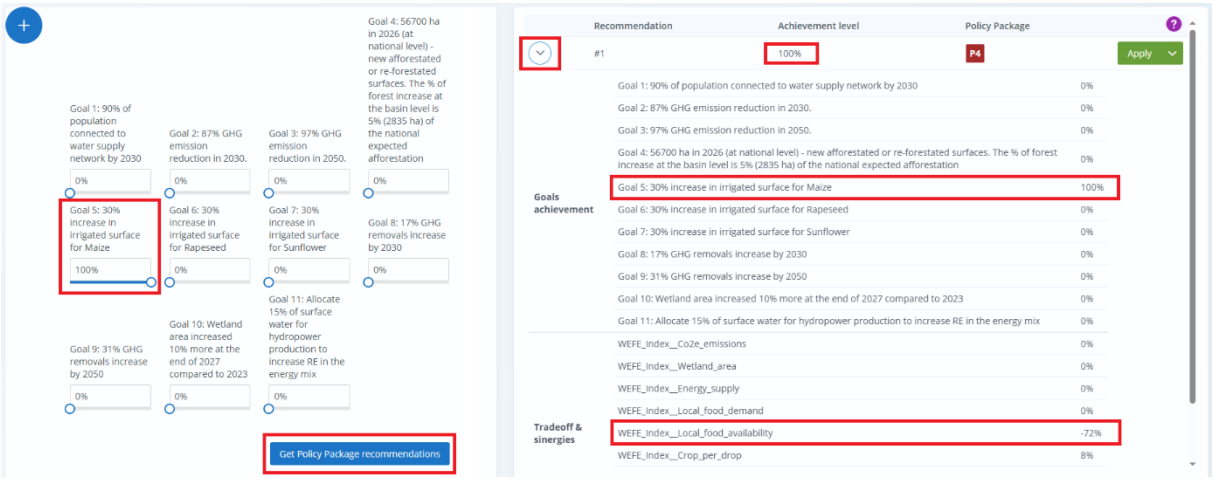

Figure 35. DSS: When a Policy Improves One Goal but Negatively Affects Another

What Happens in This Scenario?

- The system generates a policy recommendation that achieves Goal 5 at 100%, as shown in the dropdown details.
- Since Goal 5 was the only selected goal, the overall achievement level for the selected goals is also 100%.
- However, when examining the WEFE Footprint indicator for food availability, you can see that this policy recommendation has a negative impact, with an achievement level of -72%.

Understanding the Achievement Percentage

The achievement percentage for any goal or indicator is always measured **relative to the reference scenario** (*i.e.*, a scenario where no policies are applied).

- A **positive percentage** means the policy improves the goal or indicator compared to the reference scenario.

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- A **negative percentage** means the policy worsens the goal or indicator, making conditions worse than in the reference scenario.

Trade-Offs in Policy Selection

This example highlights the importance of considering the broader effects of policy choices. While the selected policy successfully achieves Goal 5, it negatively impacts another key indicator.

When making decisions, users should be aware that focusing on a single goal may lead to trade-offs, where improvements in one area come at the expense of another. To develop a balanced policy package, it is recommended to carefully review the potential effects on all indicators before finalizing a decision.

3.8. Comparison

NEPAT allows you to compare different policy scenarios within the same case study. You can create and analyze multiple policy packages (PPs) to assess how different policy combinations perform and identify the most effective approach.

✅ Step 1: Add Policy Packages

To explore different policy options, you need to create multiple policy packages (Figure 36).

- Click the ***Add Policy Package*** button.
- Select the ***Reference Scenario*** for the new policy package.
- Repeat this process to ***add more policy packages*** for comparison.

Figure 36. Comparing policy packages in the NEPAT

✅ Step 2: Assign Policy Instruments to Each Policy Package

When working with multiple policy packages, you need to specify which **policy instruments** should be included in each one (Figure 37).

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- Select a ***policy instrument*** from the available options (in the Policy Instruments view).
- Choose which ***policy package*** should include this instrument.
- Repeat for all desired policy instruments.

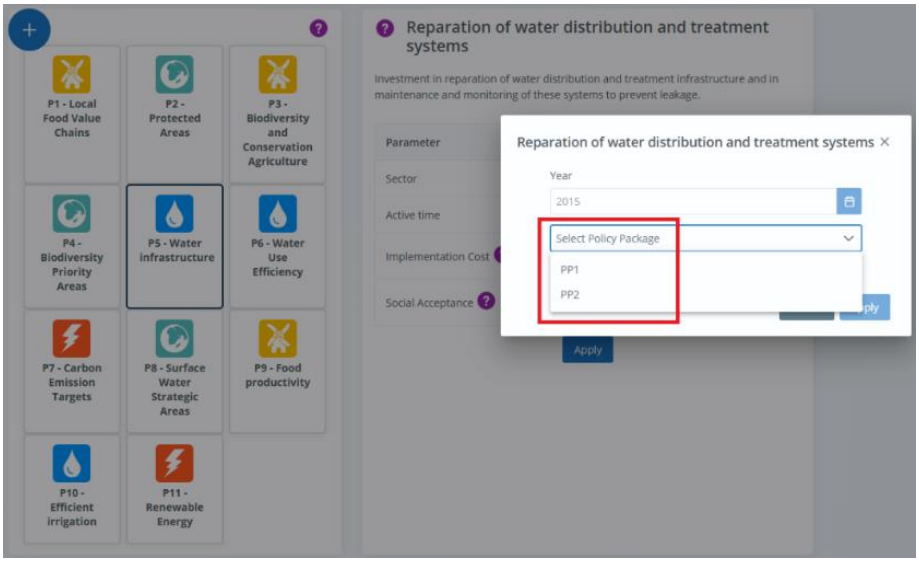

Figure 37. Selection of policy instruments for multiple policy packages

✅ Step 3: Run Simulations for Each Policy Package

Each policy package must be run separately to generate results.

- Click the ***Run*** button next to each policy package.
- Wait for the system to process the simulation.
- If needed, remove a policy package by clicking the ***cross icon*** next to the ***Run*** button (Figure 36).

✅ Step 4: Compare Results in Different Views

Once the simulations are complete for all policy packages, you can analyze and compare results across different **interactive views**. Results are presented for all configured policy packages.

- Policy Goals view – See how well each policy package achieves the defined goals (Figure 38).
- Nexus Footprint view – Assess the impact of each policy package on the Water-Energy-Food-Ecosystem (WEFE) Nexus.
- Detailed View – Explore how specific indicators and variables are affected.

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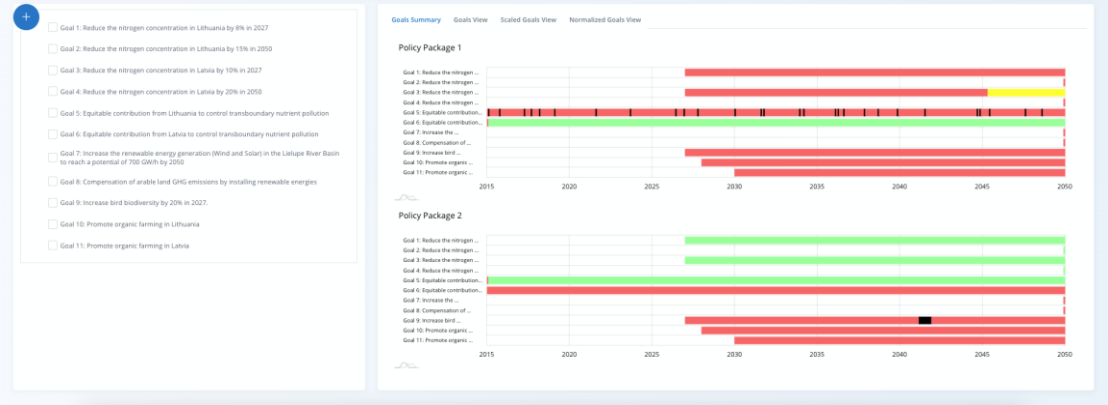

Figure 38. Policy goals view for two separate policy packages

Analyze trade-offs and select the best policy package

- Review the results across the different views.
- Identify trade-offs, where one policy package may improve certain goals but negatively affect others.
- Choose the policy package that best aligns with your objectives.

3.9. Import, export and report

NEPAT provides options to **import and export simulations**, making it easy to share and revisit past analyses. You can also **generate detailed reports** in a shareable format for documentation and presentation.

Importing a Simulation

If you have previously exported a simulation, you can easily import it back into the tool.

- Simulations can only be imported from the 🗀 Management View (Figure 39)
- Click the ***Import*** button.
- Select the saved simulation file.
- Load the simulation and continue your analysis.

📌 **Note:** You can only import a simulation that was previously exported in NEPAT's compatible format.

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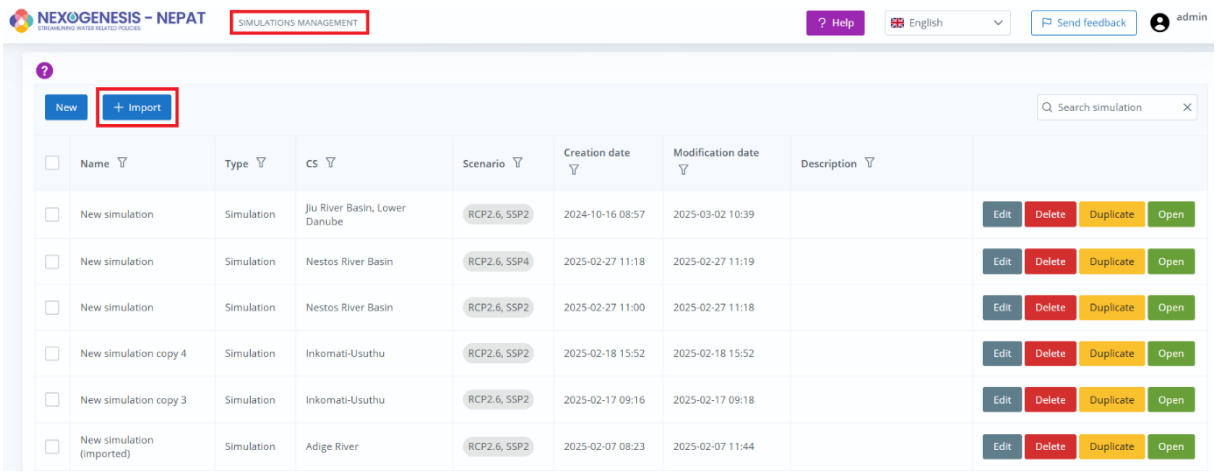

Figure 39. Importing Simulations in NEPAT

Exporting a Simulation

To save and share your simulation, you can **export it as a file**. This allows you to store, transfer, and later import it back into NEPAT.

- Simulations can only be exported from the 🔍 Simulation View (Figure 40)
- Click the ***Export*** button.
- Save the file to your device.
- Share it with others or keep it for future use.

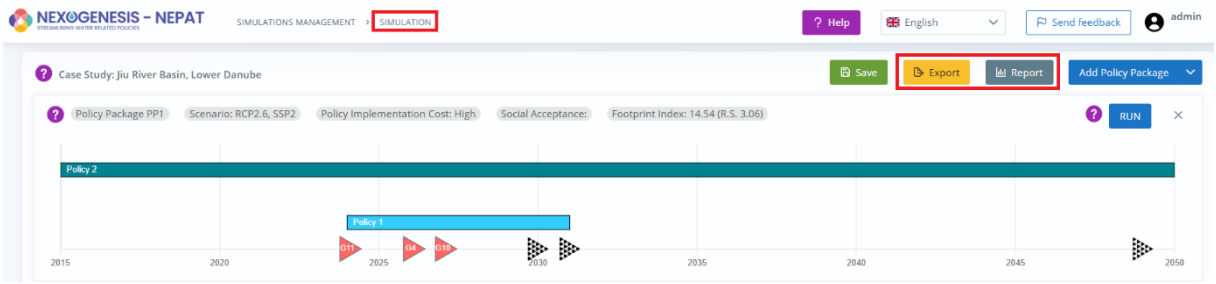

Figure 40. Exporting and Reporting Simulations in NEPAT

Generating a Simulation Report (PDF Export)

NEPAT also lets you **export results as a PDF report**, making it easy to review and present findings.

- Simulations can only be reported from the 🔍 Simulation View (Figure 40)
- Click the ***Report*** button.
- The pdf report is directly generated and downloaded to your device.

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This feature works for:

- A single policy package analysis.
- A comparison of multiple policy packages.

💡 What's included in the report?

The report provides a structured summary of the simulation, including:

- **Introduction** – A description of the case study and reference scenario.
- **Reference Scenario Description** – The combination of RCP (climate projection) and SSP (socioeconomic projection) used in the simulation.
- **Policy Package Summary** – A breakdown of the policies included in the package.
- **Policy Package Impact** – A Sunburst graph visualizing the effects of the policy package, along with a comparative Sunburst graph against the reference scenario**.** Learn more about the Sunburst graph in the 📊 Advanced functionalities section.
- **Goals Achievement** – A summary of the goals considered in the simulation, using the **color-coded chart** to indicate achievement levels:

  🟢 **Green** – Goal achieved.
  🟡 **Yellow** – Progress is closer to the goal than to the reference scenario.
  🔴 **Red** – Progress is closer to the reference scenario than to the goal.
  ⚫ **Black** – Progress is moving further away from the goal.

- **WEFE Footprint Index** – An overview of the index, including visual representations of its key pillars, sub-pillars, and indicators.

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4. Advanced functionalities

Activating *Show Advanced Functionalities* (via *User* > *Settings* > *Show Advanced Functionalities*) additional functionalities are available in different sections of the tool.

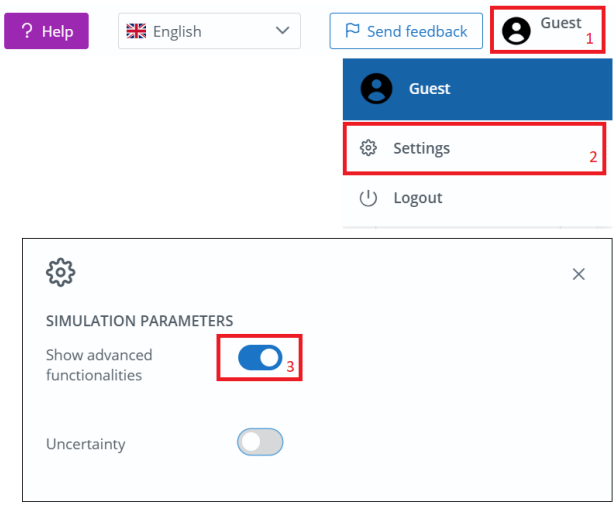

Figure 41. Show advanced functionalities in NEPAT

🔷 Detailed Policy Impact Analysis:

- **Sunburst Graphs** – A hierarchical visualization tool illustrating policy effects and interdependencies across WEFE sectors.
- **Stochastic Simulations** – Introduces uncertainty by allowing multiple simulation runs and presenting results using quartiles (Q1, Q2, Q3).

Uncertainty can be enabled after activating ***show advanced functionalities*** by clicking the ***Uncertainty*** button and specifying the ***Number of model run executions*** parameter. Note that a higher number of runs will increase execution time.

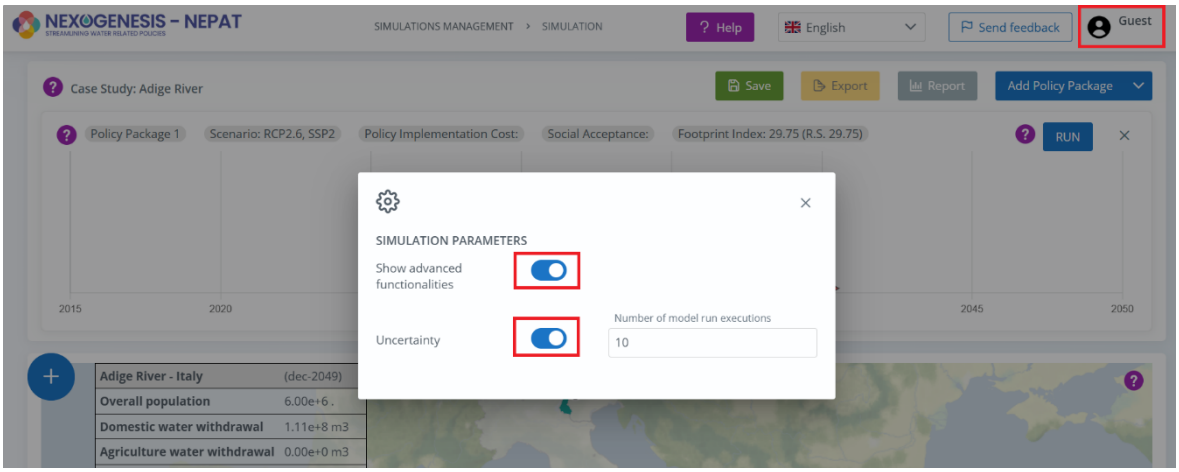

Figure 42. Show advanced functionalities and uncertainty simulations in NEPAT

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🔷 **Customizable Features:**

- **Custom Goals** – Users can define specific objectives for simulations.
- **Policy Implementation Flexibility** – Allows selection of policy application years (exclusive for Inkomati CS).
- **Qualitative Indicators** – Adjust implementation costs and social acceptance values.
- **AI-Based Recommendations** – Users can refine policy suggestions by:
    - Building on existing policy packages.
    - Limiting the number of recommended policies.
    - Restricting recommendations to specific sectors

4.1. Customized Policy Goals view

When **advanced functionalities** are enabled in NEPAT, you can define **custom policy goals** during the third step of the configuration wizard, called the *Policy Goals* step. These goals allow you to set specific targets for selected indicators, helping to evaluate policy impacts more effectively.

How to Add Custom Goals

1. **Configure a New Simulation** from the 🗀 Management View and go to the third step: ***Policy Goals*** (Figure 43)
    - *Step 1*: Select the Case Study
    - *Step 2*: Select the Reference Scenario
    - *Step 3*: Policy Goals
2. **Add a New Goal** in the *Step 3:* Policy Goals (Figure 44)
    - Click on the *+New* button to create a new custom goal.
3. **Define the Goal Details** (Figure 44)
    - **Select an Indicator**: Choose an indicator from the dropdown menu.
    - **Set the Direction**: Choose whether the indicator should increase or decrease.
    - **Adjust the Target Percentage**: Use the slider to define the percentage change from the reference scenario.
    - **Select the Target Year**: Pick the year for goal achievement from the year selector.
    - **(Optional) Add a Name and Description**: Provide additional context to help identify the goal later.
4. **Add Multiple Goals (**Figure 45)
    - You can create multiple custom goals within the configuration by repeating the steps above.
5. **Proceed to Simulation (**Figure 45)

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- Once all goals are defined, click on the *Simulate* button. This will take you to the simulation view, where the system will apply the configured goals during the analysis.

📌 **Note:** Custom goals do not appear in the Decision Support System. The DSS only displays the default goals for the selected case study.

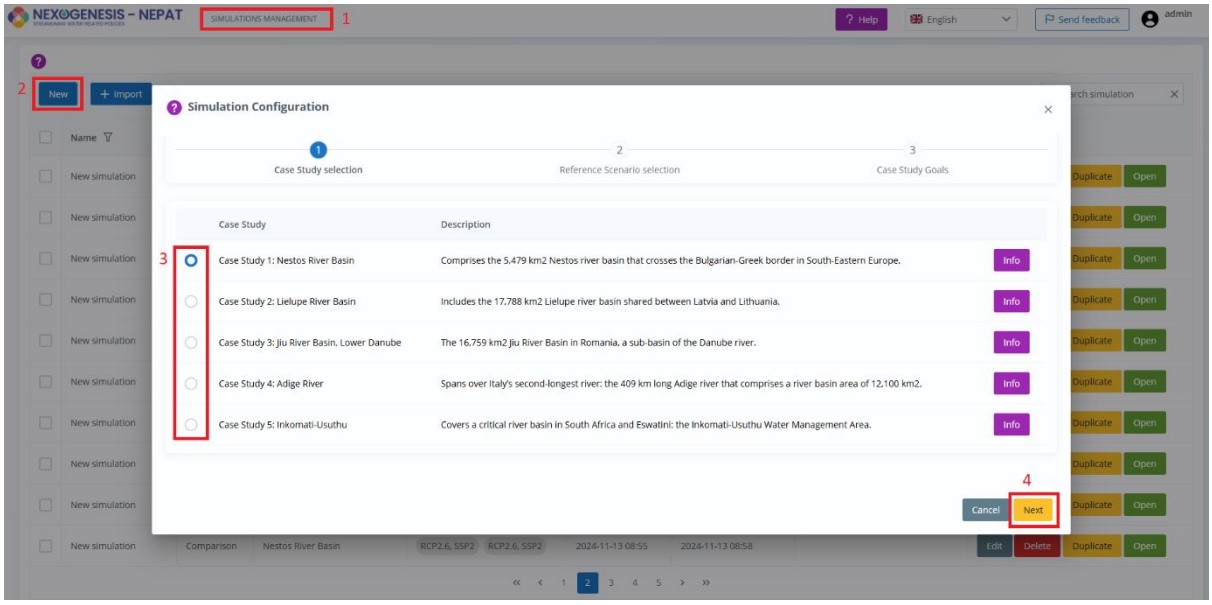

Figure 43. Defining custom goals in the simulation configuration (1)

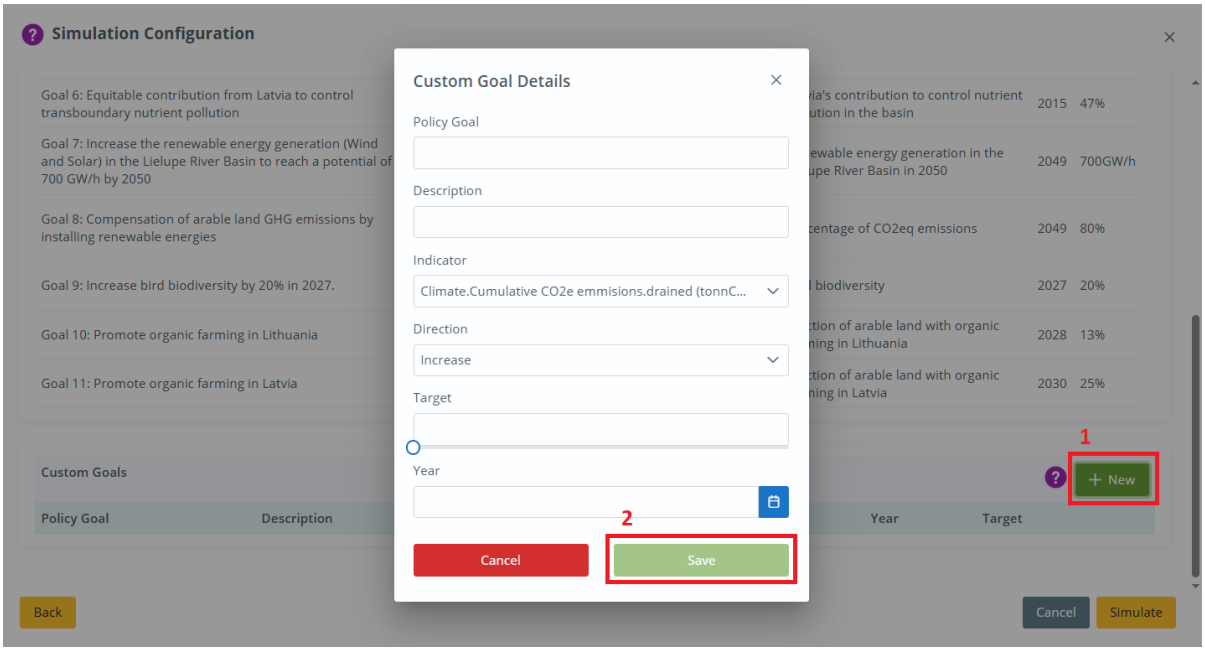

Figure 44. Defining custom goals in the simulation configuration (2)

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Figure 45. Defining custom goals in the simulation configuration (3)

How to Track Your Custom Goals

When **custom goals** have been defined in the simulation configuration, these goals will be displayed in the 🔍 Simulation View.

1. **Access the Simulation View**
    - Open the simulation with custom goals from the Management View (if it is saved or has been imported) or from the Simulation Configuration (if you have just configured it).
    - The defined Custom goals will appear in the Policy Package Summary with the label ***CGX*** (Figure 46), while default goals are labeled ***GX***.
2. **Monitor Goal Progress**
    - Navigate to the Policy Goals view.
    - The **Goals Summary** will display progress toward both the default goals and the user-defined goals (Figure 47**)**.
    - The **Goals View**, **Scaled Goals View**, and **Normalized View** will show how the selected policy instruments influence each goal over time. Compare the expected results with your predefined targets (Figure 48).

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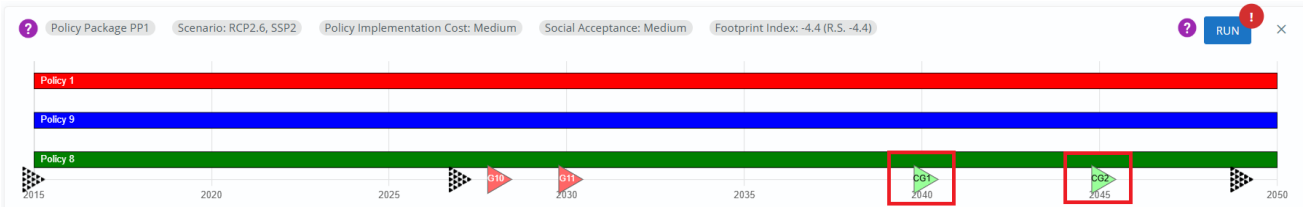

Figure 46. Visualizing custom goals in the Policy Package Summary

Figure 47. Visualizing custom goals in the Policy Goals View: Goals Summary

Figure 48. Visualizing custom goals in the Policy Goals View: Goals View

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4.2. Customized Policy Instruments view

Sunburst Graph

When **advanced functionalities** are activated, a **Sunburst Graph** appears on the right-hand side in the Policy Instruments view. This graph offers a hierarchical visualization of all variables in the simulation model, showing their interdependencies and relationships (Figure 49).

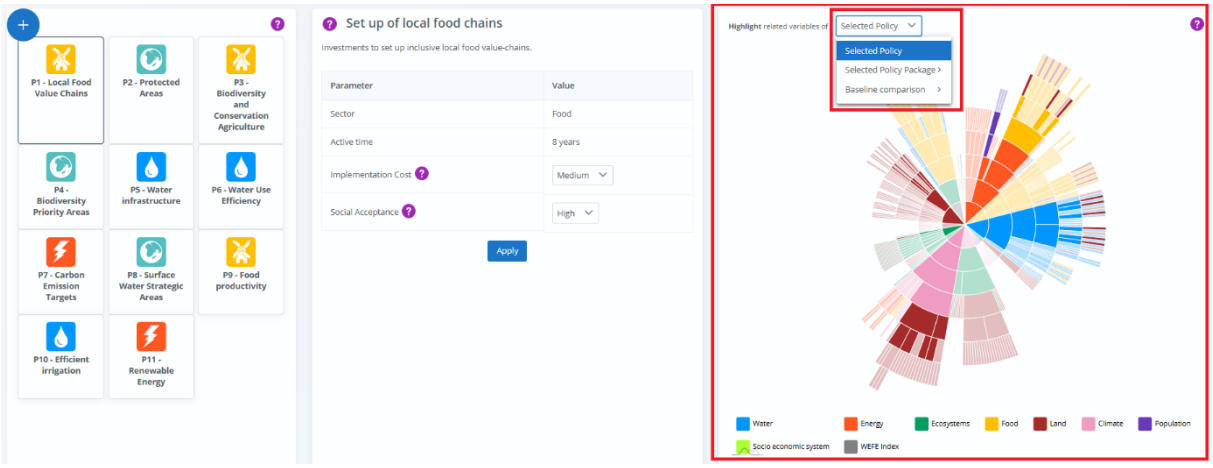

Figure 49. Policy Instruments View of the NEPAT platform with advanced functionalities

High-level variables are located at the center, with outer layers representing the components contributing to their calculation.

As you move outward from the center, you'll be able to analyze how each variable breaks down into its component elements. The visualization is color-coded to make it easy for you to identify different types of variables. You can use the legend to understand what each color represents.

The **dropdown menu** in the graph gives you several options to focus on specific aspects:

- **Variables Affected by a Selected Policy** – See how each individual policy affects various variables.
- **Variables Influenced by a Policy Package** – Examine the overall impact of a set of policies (policy package).
- **Comparison Between Scenarios** – Compare the reference scenario (based on the selected combination of RCP and SSP) with the policy scenario. This will highlight the differences between the expected outcomes in the reference scenario and the outcomes with the applied policies.

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Example: Sunburst Chart for Policy Package Comparison

The Sunburst chart helps you compare the impact of different policy packages, allowing you to assess their effectiveness across various sectors (Figure 50).

1. Go to the Policy Instruments View.
2. Select the Policy Package in the Sunburst Chart.
    - On the right side of the screen, select: ***Highlight Selected Variables of > Selected Policy Package > PPx***.
    - Choose whether to visualize the impact of **PP1** (Policy Package 1) or **PP2** (Policy Package 2). In Figure 50, PP1 and PP2 are compared using the Sunburst chart:
        - **PP1 (Water Sector Policies)** mainly affects variables in the Water and Energy sectors.
        - **PP2 (Land and Ecosystem Policies)** has a broader impact, influencing variables across multiple sectors: Water, Energy, Ecosystems, Land, Climate, Food, and WEFE Footprint variables.

Additionally, Policy Package Summary flags provide further comparison insights: PP1 achieves Goal 11 but not Goal 4, while PP2 achieves Goal 4 but not Goal 11.

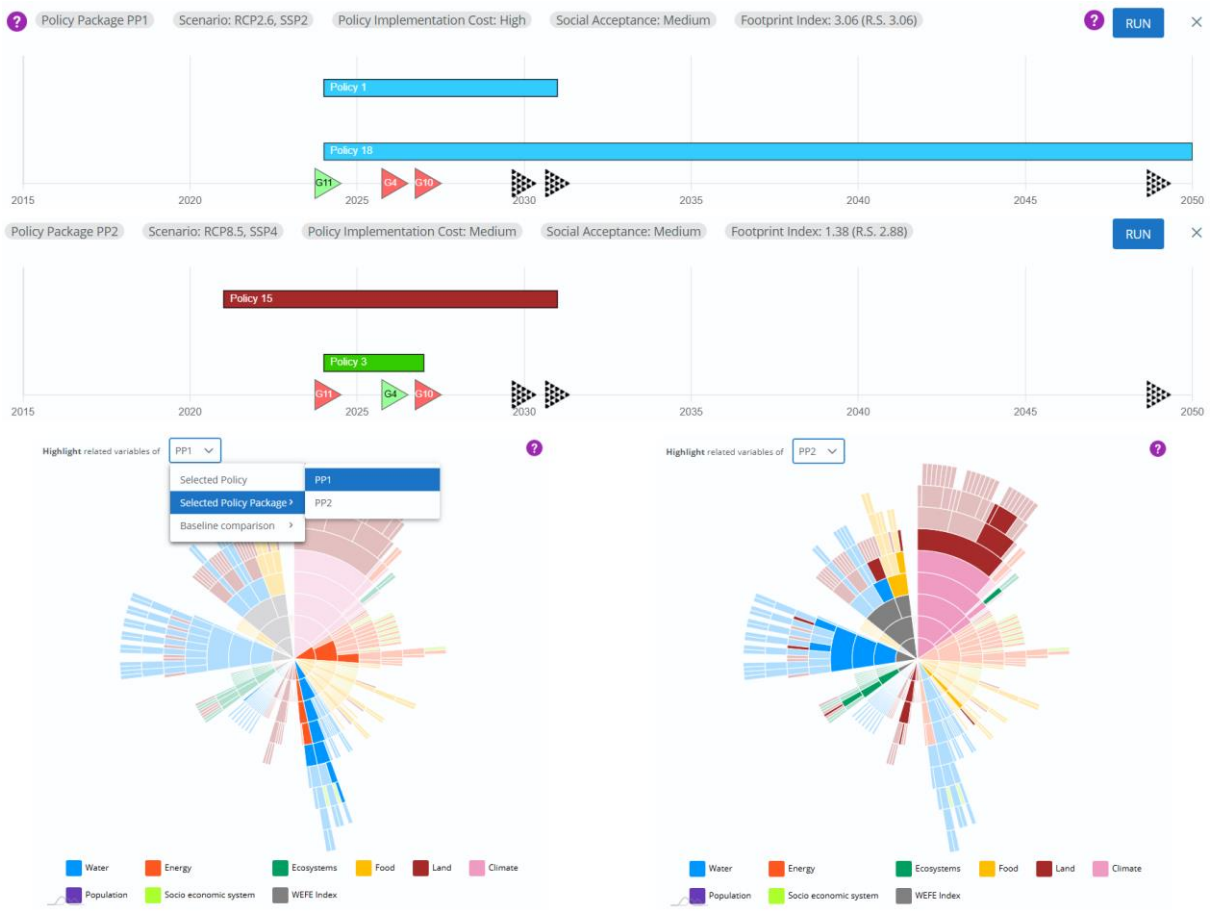

Figure 50. Sunburst Chart for Policy Package Comparison

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Customizing Policy Parameters

When **advanced functionalities** are activated, NEPAT allows you to refine your analysis by customizing key parameters before applying policies.

Follow these steps to adjust them:

1. **Access the** Policy Instruments view

2. **Select a Policy Instrument**
   - Choose the policy instrument you want to apply.

3. **Adjusting Policy Parameters**: These customization options are located in the center of the screen (Figure 51).
   - **Implementation Cost** – A qualitative indicator representing the estimated economic burden of a policy. Adjust this to reflect your assumptions or preferences.
     - The available options are *Low, Medium, and High*.
   - **Social Acceptance** – A qualitative indicator of how well a policy might be received by society. Modify this based on your analysis of public acceptance.
     - The available options are *Low, Medium, and High*.

4. **Applying Customizations**
   - Click the **Apply** button to implement the policy instrument.
   - Press the **Run** button to execute the simulation and update all relevant metrics.
   - The new values will be reflected in the Policy Package Summary metrics (Figure 52).

5. **(Optional) Generate a Simulation Report**
   - The customized values for each policy instrument are presented in the simulation report, where you can review the specific parameters applied during the simulation (Figure 53).

📌 **Note:** NEPAT does not perform a rigorous cost-benefit analysis on policy packages. Instead, it provides an intuitive metric that you can tailor based on your expertise.

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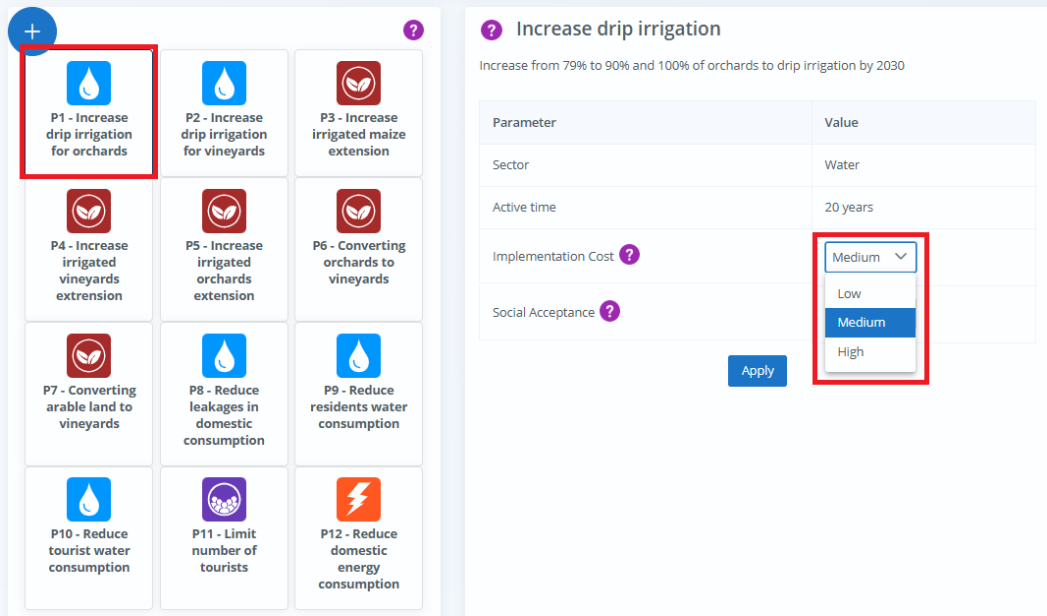

Figure 51. Customizing Policy Parameters in NEPAT

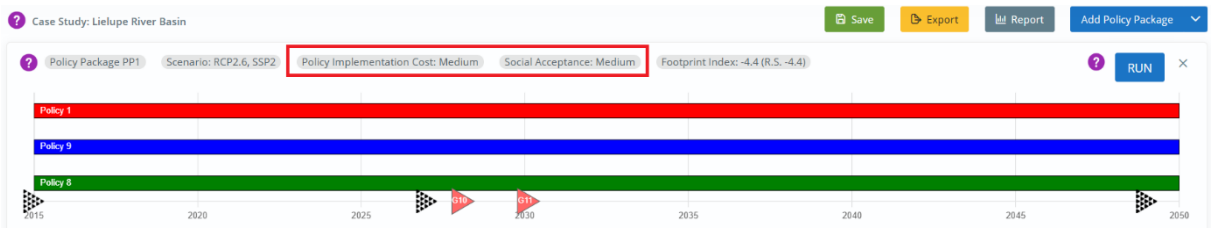

Figure 52. Metrics in Policy Package Summary

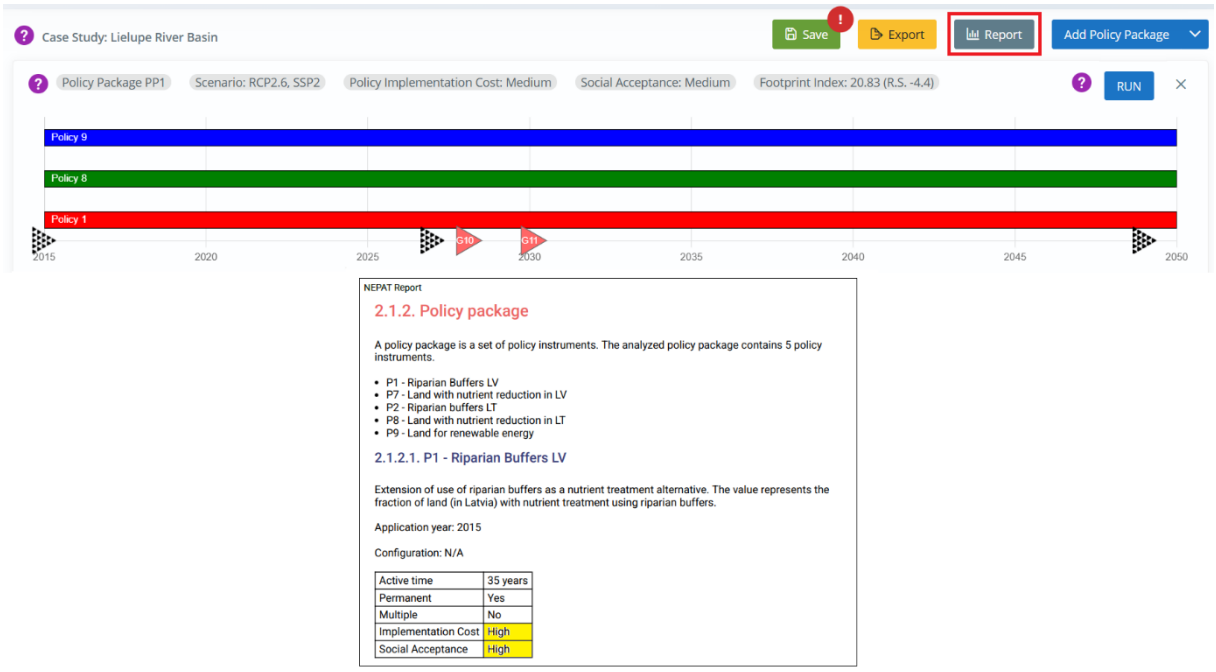

Figure 53. Customizations in the Simulation Report

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Customizing the Policy Application Year (Inkomati CS only)

When **advanced functionalities** are activated, and you're working with the Inkomati Case Study, you can customize the **policy application year**, specifying when a policy will take effect within your simulation setup.

Follow these steps to set the Policy Application Year:

1. Access the Policy Instruments view

2. **Select a Policy Instrument**
   - Choose the policy instrument you want to apply.

3. **Apply the Policy and Set the Year** (Figure xx)
   - Click the **Apply** button.
   - Select the desired **application year** from the available options.
   - Click **Apply** again to confirm.
   - The policy will now appear in the Policy Package Summary**,** starting in the year you have defined.
   - Press the **Run** button to execute the simulation and update all metrics.

4. **(Optional) Generate a Simulation Report**
   - The Simulation Report will include the customized application year, allowing you to review and document the specific timing of each applied policy.

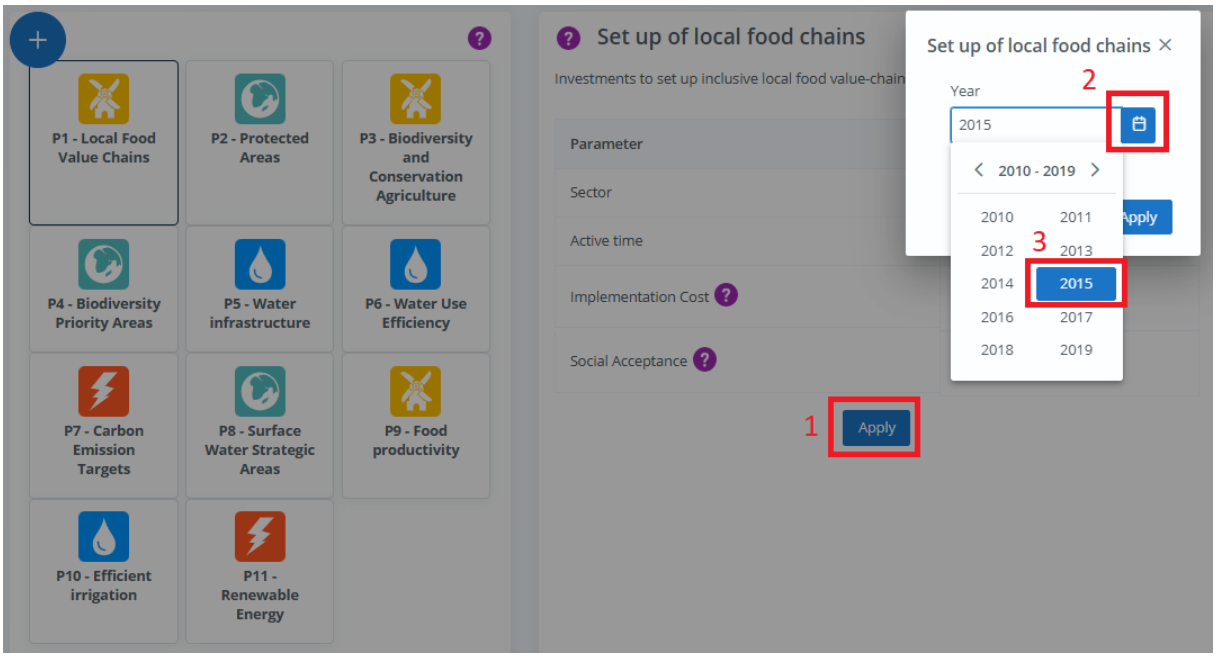

Figure 54. Customizing Policy Application Year in NEPAT (Inkomati CS only)

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4.3. Stochastic Simulations

When **advanced functionalities** and **uncertainty** are enabled, and the uncertainty parameter is set to a value greater than **1**, the system performs **multiple runs** of the **stochastic SDM** within each simulation. The number of executions is determined by the ***Number of Model Run Executions*** parameter. As a result, variations in outcomes may be observed across multiple variables.

How to Interpret Stochasticity in Results

Aggregated Results in Detailed Views: Detailed Goals Views and Detailed View (Figure 55)

- All detailed views—in the Policy Goals and Detailed View sections—aggregate the results using **quartiles** (Q1, Q2/Median, and Q3).
- This representation allows you to analyze the distribution of results generated by the **Monte Carlo simulation** and assess the variability and reliability of the simulation outcomes.

Figure 55. Aggregated goal results with quartile distribution in stochastic simulations

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4.4. Advanced Decision Support System

Decision Support System Customization Options

When **advanced functionalities** are enabled, you can customize the DSS criteria in the Decision Support System section to refine policy recommendations based on specific preferences (Figure 56).

1. **Predefined Policy Package**
   - If you want to **retain** the policy instruments from an existing configured policy package, check this box. The DSS will only provide recommendations that include these instruments.
   - To receive new policy recommendations from scratch, leave the box unchecked.

2. **Limiting Policy Instruments or Sectors**

   - ***Policy Instruments***: You can **limit the number** of policy instruments in a package by checking the box and setting a maximum. If left unchecked, the DSS can recommend any number of policy instruments.
   - ***Sectors***: If you want recommendations to focus on **specific sectors**, check the box and select the sectors of interest. Leaving it unchecked allows the DSS to include all sectors.

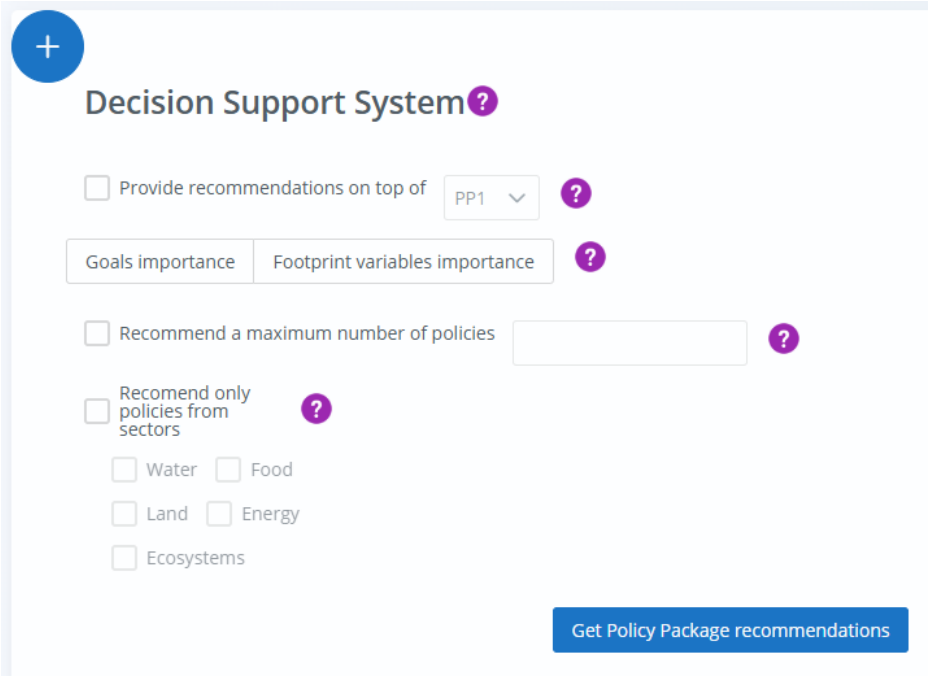

Figure 56. Decision Support System: Request DSS with advanced functionalities

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Understanding Decision Support System Results

The **DSS (Decision Support System) results** are displayed on the right side of the screen and are based on the selected criteria.

- **Uncertainty Representation**
    - If **uncertainty** is activated and stochastic runs affect goal achievement, the range of goal achievement percentages (from 100 Monte Carlo runs) will be shown in parentheses next to each recommendation result (Figure 57).

📌 **Note:** The uncertainty range is only shown when a goal is affected by the stochastic nature of the Monte Carlo runs.

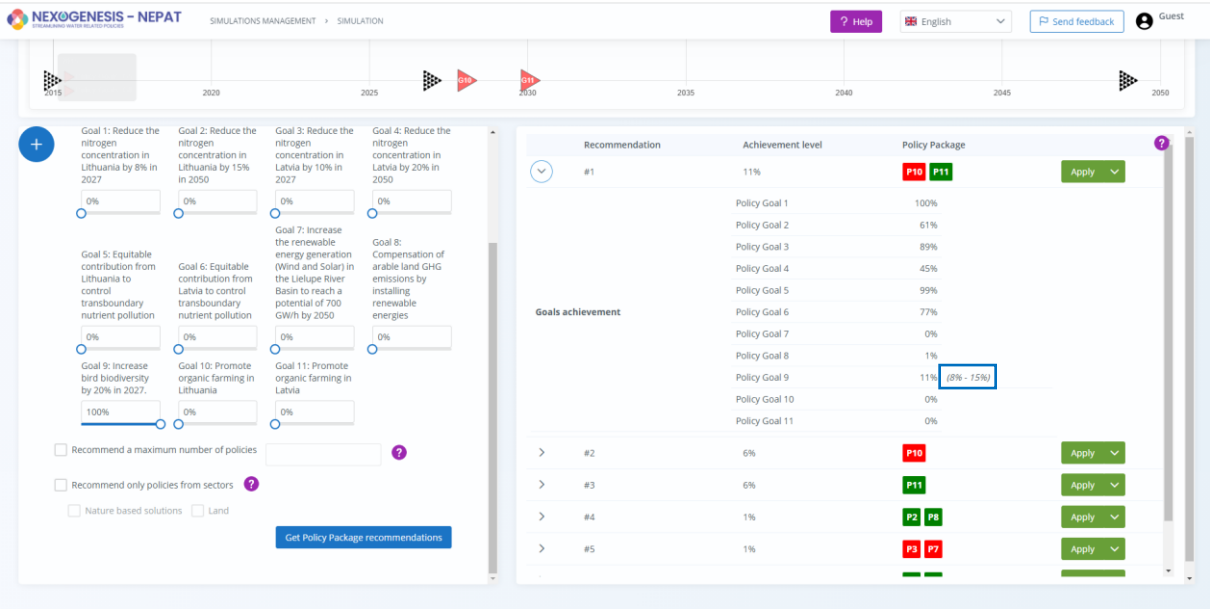

Figure 57. Uncertainty in DSS Results

- **Dynamic Recommendation for Inkomati Case Study**
    - If you are working with the Inkomati Case Study, the advanced recommendation system may provide dynamic recommendations, suggesting **both policy instruments and their optimal year of application**.
    - These dynamic recommendations appear in a separate table below the main *Recommendation* table, labeled *Dynamic Recommendation* (Figure 58)

📌 **Note:** If no better alternative is found compared to the initial recommendations, this second table will not be displayed.

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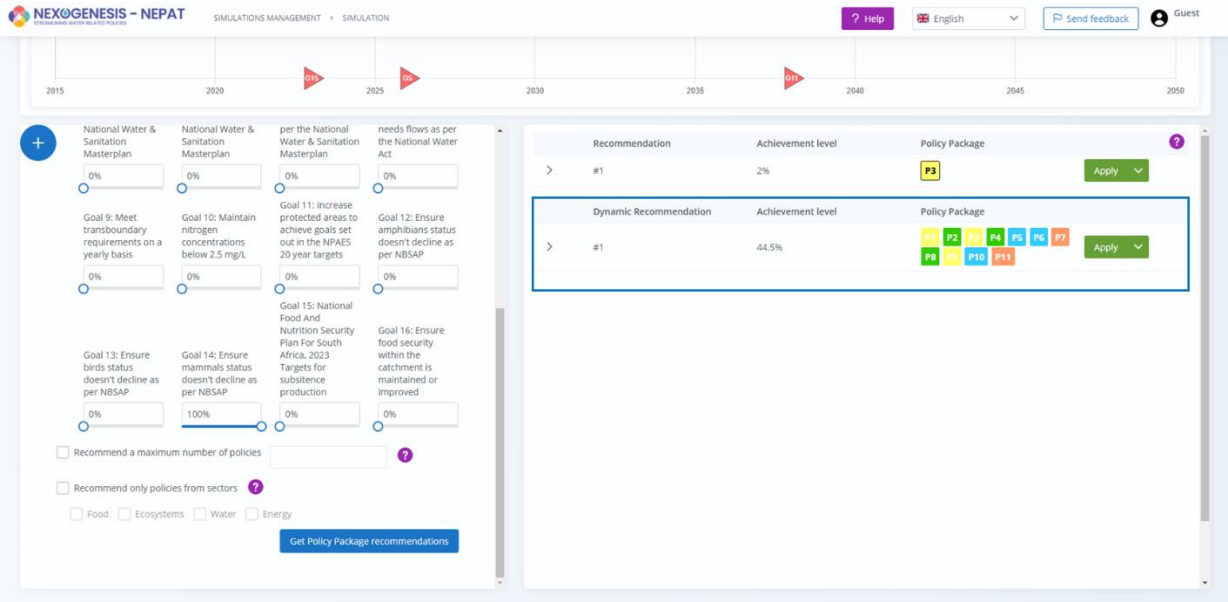

Figure 58. Dynamic Recommendation Table

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5. User Feedback

We highly value your feedback and encourage you to share your insights to help us improve NEPAT. You can easily report issues or suggest new features directly through the platform.

How to Submit Feedback

1. **Access the Feedback Section**
    - Click the ***Send Feedback*** button in the upper-right corner of the screen.
2. **Complete the Feedback Form**
    - **Title**: Provide a title of your issue or suggestion.
    - **Description of the problem**: Provide a detailed description**.** Be as specific as possible to help us better understand and address your input.
    - **(Optional) Your email**: Enter your email address if you'd like to be contacted for further clarification.
3. **Submit Your Feedback**
    - Click the ***Send*** button to submit your feedback.

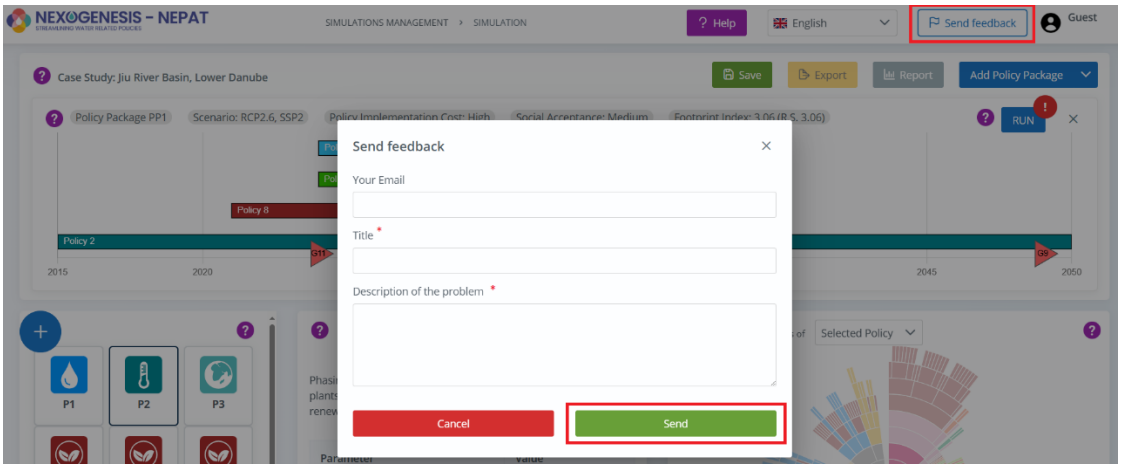

Figure 59. Built-in feedback mechanism in NEPAT platform

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